

# THE BRICKBUILDER

VOL. 12 No. 2 DEVOTED TO THE INTERESTS OF ARCHITECTURE IN MATERIALS OF CLAY FEB. 1903

## THE BRICKBUILDER.

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### APARTMENT HOUSE SERIES.

OWING to the illness of Mr. Kilham the presentation of the third article in the series on The Planning of Apartment Houses will be postponed until the March or possibly the April issue of THE BRICKBUILDER.

A CONTROVERSY has been aired in the newspapers, apparently started by Colonel Bingham, who feels called upon to criticise the nature of the White House alterations and incidentally to cast a species of aspersion upon the architect and his charges which would be altogether absurd as applied to any first-class architect and is especially so in the case of Mr. McKim. Surely if any architect ever gives full worth for his money it is the firm of which Mr. McKim is an honored member, and to assume that since the architect receives ten per cent on the decorations and five per cent on the general construction he would necessarily run up the bills of the former to merely increase his commission is a suggestion worthy of the political mind which would conceive it and simply shows how dense is the ignorance of the average public man to the point of view of the trained architect. The

commission system of payment has its faults. It, however, more often inadequately compensates an architect's expenditure of thought than it overpays, and if the prices paid for the high order of architectural service which has been expended on the White House had been twice the actual percentage the total would not have been too much for the personal attention and trained skill which have so successfully transformed our executive mansion from a very commonplace, if not vulgar, interior to one that is in every respect fitting for the official residence of our chief magistrate. And in the mean time Mr. McKim can well afford to let the politicians rave.

WE notice in a contemporary magazine, which claims to be architectural at least in its character, a statement to the effect that the American Institute of Architects had elected, among others, Emil Nauchamer of Paris an honorary member. Such is the bubble reputation. Emile Vaudremer is a name so familiar to every architect who has followed the development of his art during the past thirty years that to have that honored name so horribly mutilated in print shows how easy it is for even the greatest to be ignored. For that matter, when M. Vaudremer's name was presented at the convention he was referred to by one architect as Mr. Vaudream-er, with the accent on the dream.

THE Chicago Post Office, which is nearing completion under the direction of Mr. Henry Ives Cobb, is proving to be one of the most economically built structures of its kind. The New York Post Office, which was built during the reign of Mullett, is said to have cost one dollar per cubic foot. The cost of the St. Louis Federal Building is said to be ninety-six cents, and of Omaha seventy-one cents, Philadelphia sixty-five cents, Cincinnati sixty-four cents, and the Pittsburg Federal Building forty-nine cents. All of these buildings were built some years since when prices were considerably lower than they are now. The Chicago building is an expensive one to build in some ways, having a great deal of outside wall for its area, and the contracts were let at times when the prevailing prices were higher than they have been for many years, yet the total cost per cubic foot, including finish of a very high order, it is said, will be only forty-one cents per cubic foot. An ordinary commercial building can be built for thirty-five cents per cubic foot as a minimum. Many of them cost as high as sixty. The Chicago Post Office is a notable exception to the general rule for government work.

## The American Hotel. I.

BY C. H. BLACKALL.

THE extraordinary growth in material wealth of this country during the past generation has made possible the development of the construction and the operation of the large city hotel to an extent which renders the problem one of the most interesting which confronts the architect. Fortune has been prodigal in her blessings to this people, and apparently we are no less prodigal in improving our communities. The hotel life of to-day in a large city implies necessarily the possession of and the

in New York City any hotel which would to-day answer to the designation of first class. The Waldorf was looked upon as a freak of an extremely wealthy family which could afford to indulge such hobbies, and the prediction was freely made that Mr. Boldt, the manager of the hotel, was courting failure by assuming the enormous expense incidental to a hotel of that sort. When a few years later the Astoria was added to the Waldorf on a degree of even greater magnificence the public began to appreciate that there were a good many thousand people in the world who not only wanted but were willing to pay for the highest class of accommodations. At present



FIRST FLOOR PLAN.

HOTEL MANHATTAN, NEW YORK.



TYPICAL FLOOR PLAN.

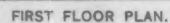
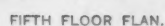
H. J. Hardenbergh, Architect.

willingness to spend a good deal of money. Few even of those who are fairly familiar with the problem realize how tremendously prices have advanced even in the last ten years. It was not very long ago that five dollars a day was considered a very high price for accommodations at the best hotels in New York City, including both meals and room. To-day it is not easy to obtain a room in a thoroughly first-class hotel under three dollars a day, and this hires a very humble apartment usually on an inner court, the best rooms commanding prices as high as ten or fifteen dollars per day for room and bath alone. Up to the time that the Waldorf was built there was not

there are a number of hotels on the scale of the Waldorf-Astoria in New York, and they all seem to be prosperous in every sense of the word. Nor is this prosperity confined to New York alone. Prices have advanced enormously in Chicago, St. Louis, Washington and Boston. The fact that all these large, magnificent hotels pay good returns on their money and a handsome profit to the manager who understands his business is abundant evidence that the country needs just such structures.

The change from the American to the European plan, so called, of operating a hotel has necessitated and brought about many changes in the planning. In the older type



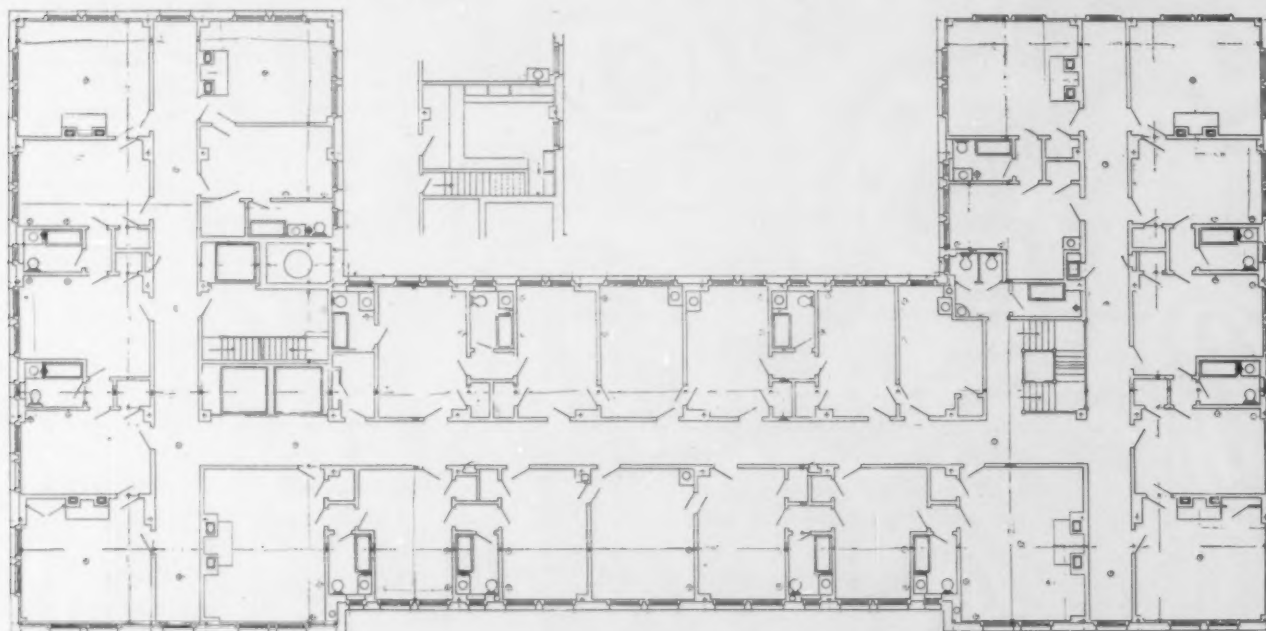


THE WALDORF-ASTORIA, NEW YORK. H. J. Hardenbergh, Architect.

of hotel the dining room was the principal apartment and was usually a single, large, more or less dreary hall where all met in common. This room and the bar were all that was offered to the patrons for eating and drinking. The bar, however, soon expanded into a café, and the café in turn has developed into what bears still the same name, but is virtually the men's dining room and usually the most profitable source of income about the building, while the dining room proper is by common custom in the large cities reserved for ladies alone or with escorts. The American plan hotel still survives in most of the small cities. In the larger cities some of the cheap hotels are run on the American plan, but almost without exception the first-class hotels are to-day on the European plan and the cheaper ones are rapidly falling into line.

In studying this problem it is the intention to draw for illustrations from only the best of the large city hotels. If an architect twenty-five years ago could have clearly

practically without much reference to everything below, for with our modern methods and the possibilities which steel puts within our reach the lower stories can be arranged and divided almost without reference to the structural lines of support from above. This may be questionable architecture perhaps, but it certainly seems to be custom. In the Waldorf-Astoria the ballroom, one hundred feet in diameter, is spanned by huge girders which support some fifteen stories or more of sleeping rooms. In nearly all the hotels, in fact, the large rooms are arranged with little reference to the upper portion of the building. So the first consideration of plan is for the sleeper; the next is for the business floor, so to speak, including the dining room, offices, etc.; and the last to be considered includes the kitchens and service quarters generally. These can be tucked away to an apparently unlimited extent in the bowels of the earth. The hotel which is now being constructed at the corner of 42nd



TYPICAL FLOOR PLAN.

HOTEL SCHENLEY, PITTSBURGH. Rutan &amp; Russell, Architects.

foreseen just what the hotels of the twentieth century would be, the best hotels of his time would all have been poor models to study for what we have to-day. It is fair to assume therefore that the future will see quite as large developments as have marked the past, and the best of to-day will surely be none too good to study for the creation of what will be the average of excellence of a few years hence. Furthermore, there is no problem involved in the construction of a small hotel that is not equally prominent in a large one and which is not usually therein solved in a better and more logical manner. There are few Waldorf-Astorias in the country and only one Ponce de Leon, but it is by studying these best examples that the architect who has a more modest problem confronting him can find the exact solution which he seeks.

In the planning of a large hotel the first study is given to the arrangement of the sleeping accommodations. The disposition of the upper stories can be established

Street and Park Avenue, New York, is carried down story after story until it stretches far below the bottom of the subway. Indeed the subway is carried through one corner of the hotel so as to be entirely enclosed by the service portions. The three factors, the sleeping apartments, the first floor and the service, are almost independent of each other and will be studied separately in this article.

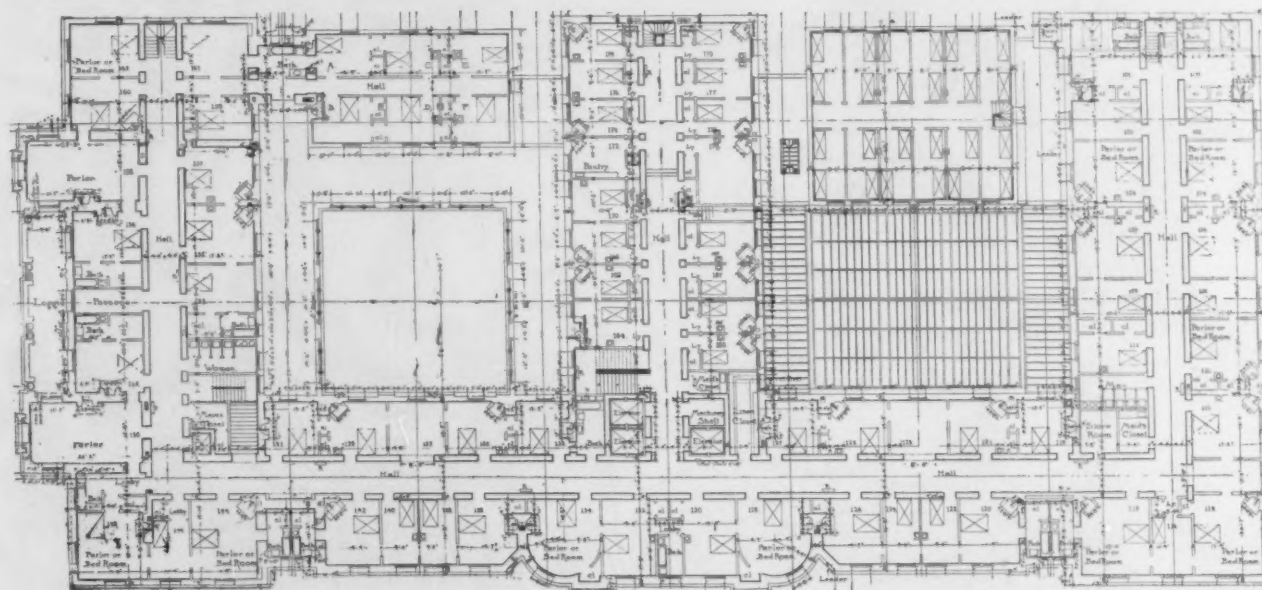
There are three troublesome features to be considered in planning the sleeping apartments of a hotel, namely, bath rooms, fireplaces and closets. These are termed troublesome for the reason that invariably the client will take the total area of the lot, divide it by the approximate area of a single sleeping room, multiply this by the number of stories, and demand that in some way the architect shall plan a hotel with that number of sleeping rooms. That was approximately possible before the days of modern plumbing, and there are still many hotels built with



relatively few bath rooms, but it is becoming more and more nearly the rule in every first-class hotel to provide each room with a bath room, or to at least arrange the rooms with one bath room adjoining two sleeping rooms. And in regard to the disposition of the bath rooms themselves there are two distinct views. Some hold that so long as the bath rooms are well ventilated, outside light and air are in no sense necessities, and that only on rear passages or courtyards is it advisable to give up space on an outside wall for direct light into a bath room. Consequently, following this supposition, the bath rooms are placed inside and receive a certain amount of air and rarely a little light from shafts which are often reduced to an extreme minimum. In the second floor bath rooms of the Holland House, New York, one light well serving two bath rooms measures only about 18 x 52 inches. Likewise in the Auditorium Annex Hotel in Chicago, which is considered one of the best in the country, the bath rooms in the older portions of the hotel are entirely

meet with more favor in the West than it does in the East. Whichever way is adopted permits, if properly installed, of perfectly clean, wholesome bath rooms, but it seems to sound more attractive to the public to say that every bath room has outside air and light, and though the value of this light and air may be exaggerated, the more recent hotels, certainly in the East, seem to have adhered to this arrangement. As to the question of whether bath rooms pay there is little doubt. The interest on the extra cost of the plumbing fittings is not sufficient to be seriously considered in the matter. A bath room at the most takes up 40 per cent as much room as a single sleeping room, but on the other hand a room with a bath usually rents for about 50 per cent more than a room without a bath, and, furthermore, it rents much quicker, so that from a purely financial point of view it would seem to be desirable that every room in a large hotel should have its independent bath room.

The typical floor plan of the Hotel Schenley at Pitts-



PLAN OF FIRST BEDROOM FLOOR.

THE JEFFERSON HOTEL, RICHMOND. Carrère & Hastings, Architects.

lighted from interior wells and in the portion recently completed from the plans of Holabird & Roche only a very few of the bath rooms receive direct outside light. The wells in this instance, however, are relatively quite generous, being about 16 square feet in area each. On the other hand, by reference to the fifth floor plan of the Waldorf-Astoria it will be seen that in every case the bath rooms are lighted from the street. In the Hotel Manhattan, New York, the only bath rooms not lighted from the outside are either entered directly from the corridor and are for public use or are connected to some of the inner corner rooms of the light courts. But on the plan of the fourth to the ninth floors inclusive there are only five inside bath rooms as against twenty-three outside bath rooms on each floor. In this hotel every room not provided with a bath room has a set bowl and closet. The New Willard follows the same principle, putting bath rooms entirely outside. In a general way the plan of lighting the bath rooms from an inside well seems to

burgh shows in the front rooms an arrangement of baths and closets which can almost be taken as a typical one, when it is not considered absolutely essential that every room should have a bath. It will be seen that the outside bath room is reached by a short passage between two adjacent rooms, the bath room and the passage taking all but about three feet of the depth of the room, the remaining space in the rear of the passage being divided into two closets for the respective rooms. By this arrangement the bath room can be used for either chamber and on a long spacing across a continuous front the group of two rooms and a common bath room would be repeated indefinitely. This arrangement also permits rooms to be rented en suite, which is frequently desirable. In fact it may generally be stated that in the modern hotel all the rooms are connecting. The fifth floor of the New Willard at Washington affords in the rooms on the court towards the rear a very good arrangement where every room is to have its independent bath. Here



TYPICAL UPPER FLOOR PLAN.  
NEW PLANTERS HOTEL, ST. LOUIS.  
Isaac Taylor, Architect.

the rooms, however, are not connecting. On the other hand, along the two street fronts every other room is arranged with a bath, with a bowl in the passage connecting the two rooms, thus allowing the rooms to be let in pairs.

When the bath rooms are placed against the outside wall the problem of closets becomes a very simple one, as the total depth of the bath room is not sufficient to take up the average depth of the chambers and the remaining space works in very nicely for closet room. Few hotels now are built without a separate closet for each room. The old days of wardrobes have long gone by. This seems somewhat like an anomaly, for probably ninety per cent of the people who patronize a city hotel rarely unpack their trunks and still more seldom do they hang up their clothes in the closet, but if the hotel were built without the closet it would run a chance of getting a bad name, which is far worse than to be actually bad, and consequently the room must be given up to this purpose.

The upper floor plans of the Hotel Jefferson, which was built by Carrère & Hastings, at Richmond and destroyed a short time since by fire, offer very good illustrations of outside bath rooms and fireplaces. Nearly all the rooms are provided with fireplaces and they certainly add a great deal to the attractiveness of the room. Practically a fireplace is a mere ornament in a hotel, for it never could be depended upon for either heating or ventilation, and the complication in a tall building arising from the numerous flues is something which interferes very seriously with the proper arrangement of the upper stories, but when it can be worked in it is always desirable and at least helps to make the rooms attractive and to rent them easily.

The size of bedrooms in a hotel is something which has diminished a great deal within the last few years. It was not very long ago that the ideal bedroom in a first-class hotel was a very large high studded apartment with ponderous

mahogany furniture and heavy draperies at the windows. The bedrooms now are often less than 300 square feet in area, and in some rooms they are even as small as 9 x 12, though this is an inadvisable minimum. The furniture is light and graceful, the bedstead is of brass, and lace curtains are hung at the windows, while the height of story is no more than would be expected in a first-class residence. A comparison of the sizes of sleeping rooms is of interest. In the first bedroom story of the Jefferson the outside rooms range from a minimum of 9 x 16 up to 17 feet square, while the rooms around the court run from about 9 x 13 up to a little over 14 x 17. In the Niagara Hotel at Buffalo, by Green & Wicks, the bedrooms range from 175 to 375 square feet in area. In the Manhattan, New York, the outside rooms are about 12 x 19 and the rooms on the court vary from 9 x 12 to 14 x 17. Unless considerations of expense are to be considered paramount, it may be said in a general way that no hotel bedroom ought to be less than 150 square feet in area. We are speaking now of the first-class hotel, of course.

There are several features which enter into the equipment of each sleeping room. The heating is by a steam coil concealed in the window seat, drawing air from out of doors and controlled by something analogous to the Johnson system, so that all the guest has to do is to turn a pointer on the wall beside his bed to the degree of heat which he desires, this pointer actuating an electric or pneumatic device which opens or closes the steam valves. The door to the corridor is usually provided with a transom, but it is customary to cover the glass with a muslin screen so that reflections cannot be seen from outside. Each room is, furthermore, equipped with a telephone communicating to a central station in the hotel by which the wants of the tenant can be made known. There is a very ingenious device known as the Teleseme which is familiar to all hotel dwellers and permits the guest by a peculiar arrangement of pointers to ring for almost any imaginable service. The room is lighted by a central chandelier controlled by a switch near the door, besides which there are bracket lights each side



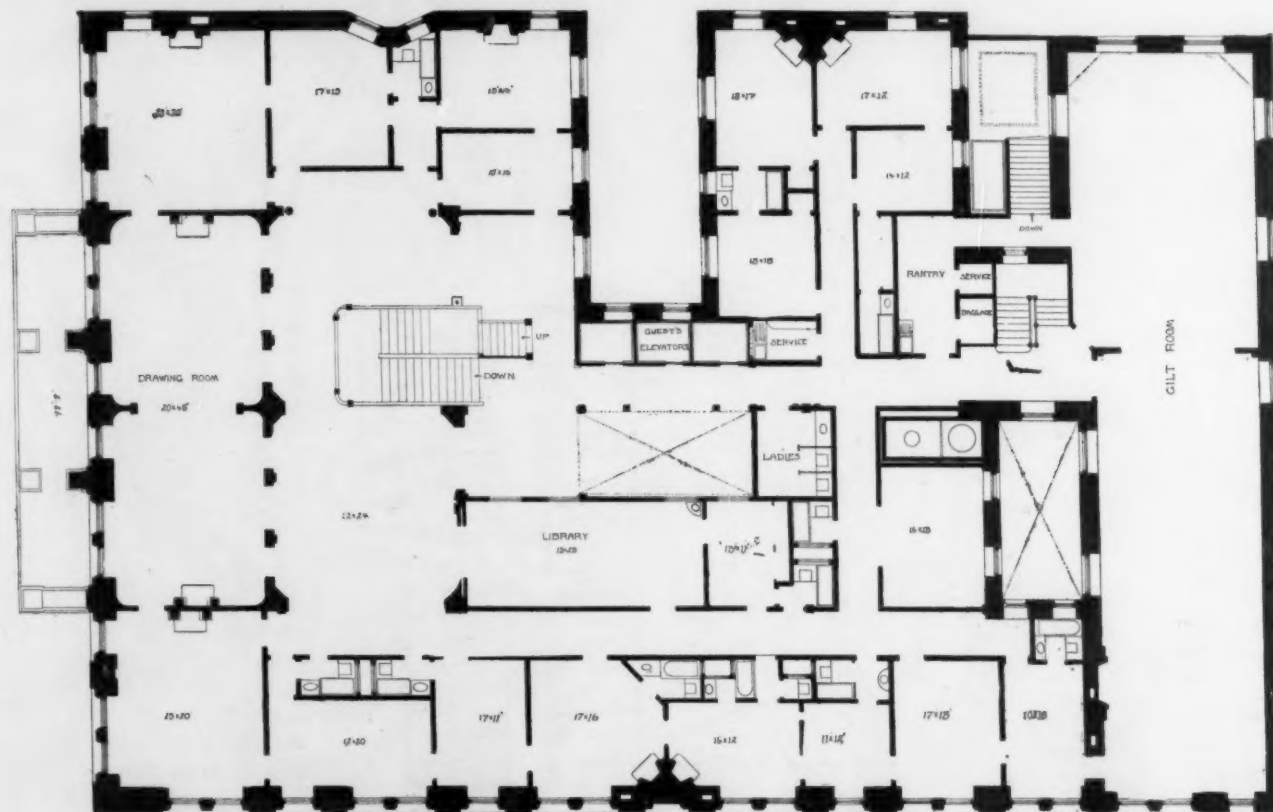
THIRD FLOOR PLAN.  
NIAGARA HOTEL, NIAGARA FALLS. Green & Wicks, Architects.



of the dressing table. The latest idea as to construction of the floor provides for a concrete surface into which is built, around the edge of the room, a wooden strip to which the carpet is nailed.

The ideal hotel would be one in which every room was provided with a bath, ample closets, a fireplace and a bay window. The hotel which comes apparently nearest answering all these requirements is the Auditorium Annex in Chicago. Every outside room has a bay window and many of them have fireplaces, but it is seldom possible to have bays to this extent on account of restrictions of building laws and the necessity of utilizing as much of the lot area as possible. Neither the Waldorf-Astoria, the Manhattan nor the New Willard are provided with bays. The New Planters, in St. Louis, has only a very

Boldt, the manager, towards the rear on 33d Street. The plan of the first floor of the Hotel Manhattan likewise shows state apartments occupying the greater portion of the 42d Street front. These are, however, far less magnificent than those in the Waldorf-Astoria. It may be said in passing that the first floor in a modern hotel usually designates the first floor of sleeping apartments and the rooms of course are numbered with the initial of the first figure corresponding to the index of the floor. Then besides these extremely elaborate apartments there are usually a number of rooms arranged in groups so that they can be rented in suites, such as the front apartments of the Hotel Touraine or the rows of rooms facing Michigan Avenue in the more recently completed portion of the Auditorium Annex. There are also several very in-



SECOND FLOOR PLAN.

HOLLAND HOUSE, NEW YORK.

Harding &amp; Gooch, Architects.

few recessed bays which do not project very materially beyond the building line. Only rarely are bay windows possible, but they certainly add a great deal to the hotel, and when circumstances permit should be put in by all means.

A notable feature of all first-class hotels to-day is the attention given to special suites. For years every hotel had its bridal apartments, which are still continued in a way, but the large hotels now go even further and have what are termed the state apartments. The first-floor plan of the Waldorf-Astoria shows three sets of such apartments, the inner suite including the Astor dining room facing towards the court over the palm garden, the state apartments at the corner of 33d Street and Fifth Avenue, so called, and the private apartments of Mr.

geniously planned suites in the Jefferson. In a sense these suites are mere flourishes. The steady income of the hotel comes from the regular patron who asks only for a comfortable room and bath and runs up the greater portion of his bill in the café and dining room.

A modern hotel has very little in the upper stories except the sleeping rooms. It seems to be the custom to provide only a slight accommodation for linen and storage on each story, rather massing accommodations for such purposes in one place. Each story, however, is provided with a maid's closet, a men's and a women's toilet room, and very often a single public bath room; and then of course there are the service stairs, and there is usually on each floor a serving room connected by a dumb waiter to the stories below, from which meals can be served to

rooms. The upper floor plans of the New Willard show all these features in a very practical arrangement. These take in the aggregate but a very slight proportion of the whole floor space, and they are usually tucked away in the inner corners of the light areas or in space that could be used for nothing else.

It is very hard to find precise data as to servants' apartments in a modern hotel. The tendency is growing every year to eliminate residential servants as far as possible and to oblige all who are connected with a hotel, with the exception of the housekeeper and the manager, to live outside. As a matter of fact it is a pretty expensive luxury to house the servants under any conditions in a first-class hotel. In the Touraine, in Boston, a separate building was erected on an adjoining lot for this purpose, the lower stories being utilized for storage, etc. But generally speaking, a hotel is from its very nature built on extremely high-priced land, and it is far more economical to pay the servants more and have them live out than to try and house them within the hotel. Furthermore, the difficulties of controlling servants in the house make it often extremely desirable to get rid of them entirely. Of course the bulk of servants in any hotel are employed about the ground floor and the basement, and these almost invariably live out. In a rough way the number of servants required for the care of the sleeping rooms may be taken as one woman for every ten bedrooms, plus one man for each floor, besides which fifty per cent should be added for night force. When these are accommodated in the house their rooms are either disposed around inner wells, or what is a better way, the entire upper story is given to their accommodation.

The width of the corridors in the upper stories of a hotel is governed to a considerable extent by the circumstances of the lot, but in a general way the tendency on

the part of hotel constructors appears to be to strive for what a few years ago would have been called wide corridors. In the Schenley the corridors are six feet wide. In the Manhattan and the Jefferson they are nearer

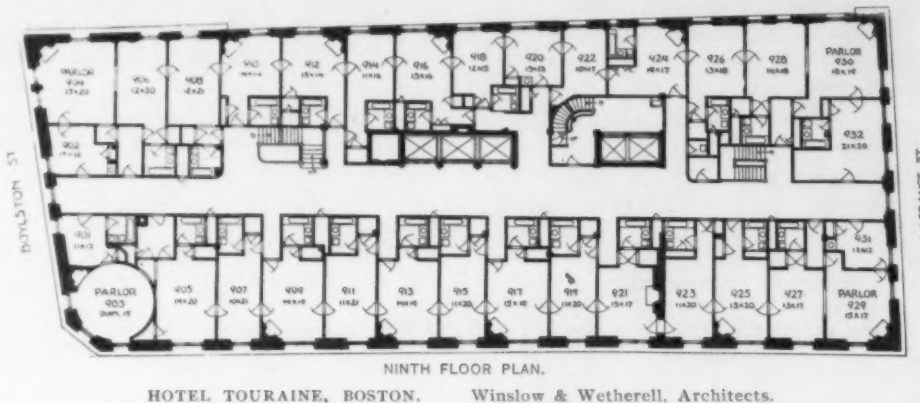
eight. In the Niagara and the New Willard they are nine, in the Waldorf-Astoria ten, and in the Touraine something over eleven. Many hotel men regard nine as the extreme minimum to which the height can

be reduced except as the result of necessity.

The elevator service for even the highest hotels is a relatively slight consideration as compared with the demands in an office building, for instance. The elevators should, however, at least be in pairs, but the service need not be specially rapid, and it has been found generally best to concentrate the elevators at one point rather than to spread them in different parts of the building. The Waldorf-Astoria, with nearly ninety rooms on a floor, has eight elevators, but this hotel was built in two distinct sections. The Auditorium Annex in the older portion, with forty-one rooms, actually uses only two elevators, while the more recent portion of the Annex, with only twenty rooms, has also only two elevators. The principal thing is to start the elevators at a point on the ground floor convenient to the ladies' room, let that come where it may in the upper story.

Some hotels make a special provision for a service elevator with a baggage room on each floor. The necessity for this depends a good deal upon the nature of the patronage. Another feature which has been introduced into only a few of the more

recent hotels is a system of despatch tubes with a receiving station on each story in charge of an attendant to whom can be sent messages or cards for guests. This has been worked very successfully in the Waldorf-Astoria and is a highly desirable feature.





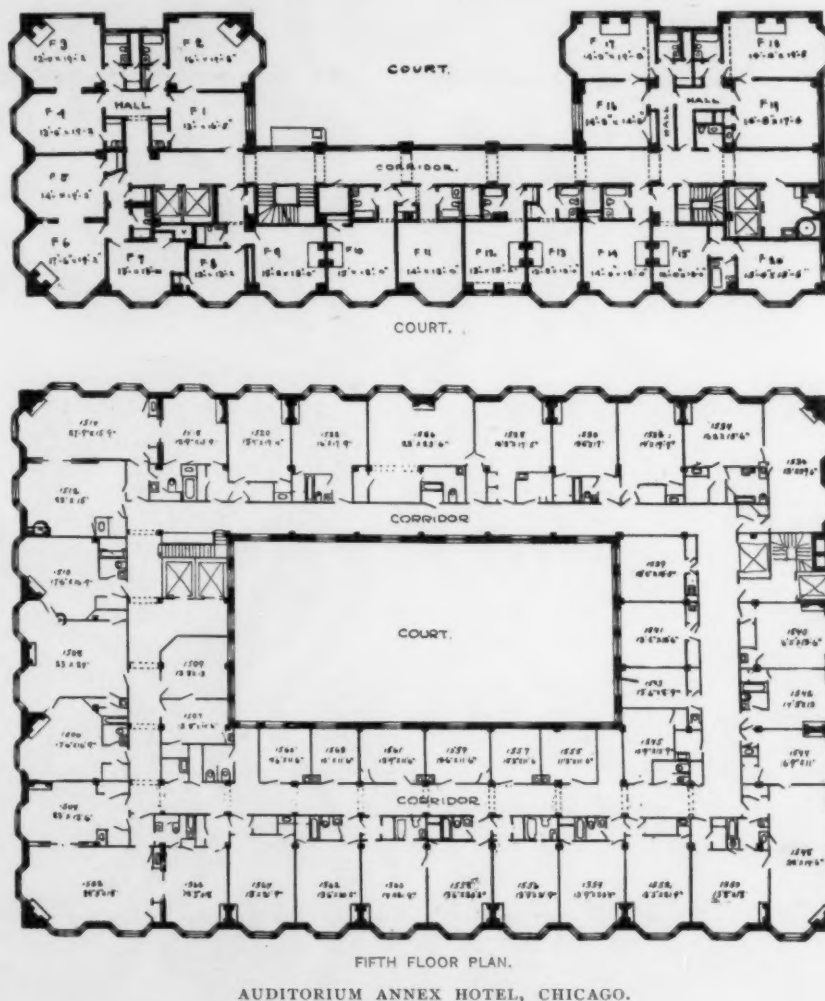
LAST week there was held in Boston the Twelfth Annual Convention of the Society of Master Painters and Decorators of Massachusetts, in the course of which there was presented a paper entitled "Should We Not Endeavor to Establish a School of Decorative Art in Boston?" The writer of the paper, who is a Boston man, surely cannot be ignorant of the excellent work which is being carried on along the lines of decorative design by the art school connected with the Boston Museum of Fine Arts, but his point of view was evidently taken looking toward the establishment of what would be more properly termed a trade school for decorative painters. Even in this respect, however, he fails to recognize the essential requisites. A knowledge of mere details of painting as a trade constitutes the least part of the equipment of a successful decorator. It may be said in truth that the decorators in the whole country, of marked ability, aside from the purely technical points of their business, can be numbered on the fingers of one hand. As a rule our public buildings are poorly decorated. There is enough money spent, but the supply of intelligently trained, thoroughly well equipped men is most disappointingly small when we consider the importance of decoration, and consider at the same time the number of schools which are really doing most excellent work in training young men and women. Decoration is the final touch to a building. It is the part of the fabric which appeals first and most strongly to the beholder, and yet it is the part which is most often slighted. No matter how well constructed our buildings may be, or how fair the architectural envelope may appear, the interior effect may be utterly ruined by careless or thoughtless application of the finishing coats of paint. We are gradually developing our national architecture in its exterior effects to a very high point. The development of decoration awaits us in the future,

and there is hardly one of the arts allied to architecture which offers so promising a field to the young man as decoration. The quality of our decorative work, however, can be benefited far more by building up the schools which are already in existence than by starting new ones and thereby creating a diversion of interests. The fact that the master painters and decorators are thinking of these matters is a most encouraging sign, but it is to be hoped that they will see fit to lend their practical help to the existing schools rather than try to found new ones. There is no need for a new school of decorative art in Boston. There is abundant need for more

support for those which are already established.

THE directors of large enterprises seem to appreciate as never before the value of unity in the design of a group of buildings. A few years ago the tendency was in the opposite direction and if a dozen buildings were to be built it was quite likely a dozen architects would be selected for the task. But at present apparently a different view is taken. A short time ago Mr. Ernest Flagg received the entire commission for rebuilding the Annapolis Naval Academy. The reconstruction of West Point is to be intrusted to a single architect. It is announced that Carère & Hastings have

been retained for the rebuilding of Cornell University, involving thirty-eight new buildings at a cost of some five million dollars. The Leland Stanford University buildings were designed altogether by Shepley, Rutan & Coolidge. The buildings for the University of California are being designed in a comprehensive manner by Mr. John Galen Howard. There are other instances which might be cited to show that the feeling is strongly in favor of preserving the unity of a large group of buildings by intrusting it all to one architect, rather than to divide the artistic and practical responsibilities.



## Interesting Brick and Terra-Cotta Architecture in St. Louis.

DOMESTIC.

BY S. L. SHERER.

THE request of the publishers of THE BRICKBUILDER for a series of notes under the above caption renders a word of explanation necessary.

The term "interesting" serves to introduce those minor examples of architectural design which have some claim to distinction, and are notable because of the manner in which brickwork has been treated. Such a limitation precludes any reference to the more pretentious buildings of brick which are, in some instances, characterized by architectural design of a high order.

Situated in a locality underlaid with extensive bodies of limestone, and with an abundance of clay well adapted to the making of fine brick, tile and terra-cotta, the natural tendency in building has been, fortunately, to structures of masonry. This has given to St. Louis an appearance of stability and permanence not enjoyed by many cities less favored in the products of clay.

Although the life of the city extends backward a century, it was not until 1817 that brick was first used, in the house of Judge William Carr Lane at 400 South Main Street, and in the following year Colonel Thomas Riddick erected the second brick house at the head of Plum Street — both landmarks of great interest as showing the quality of the handmade brick of the period and the manner of laying them, which is in Flemish bond. Previous to this time the buildings had been constructed of wood, the log-cabin type predominating, with an occasional structure of native stone.

The ante-bellum houses are interesting from the standpoint of design rather than for the brickwork, which was usually laid as stretchers with a close ruled joint of painful precision. The weathering of years has imparted to the pressed brick a velvety texture of singular charm, but such monotonous uniformity applied to modern stock brick imparts a lifelessness to the wall that no merit in design can wholly overcome. As it is only the work of the last decade that shows a departure from such treatment of brick, the illustrations necessarily exclude older work.

In its class probably the most interesting example of this later period is the DeWolf house, one of a notable series of brick houses designed by Eames & Young in a style adapted from the type of *manoir* house prevailing in the north of France, but imbued with the strong individuality of the designers. Built of red brick laid without sorting for color and with deep concave joints, its walls have a life and quality wholly absent from the conventional brickwork of the period.

This desirable quality of wall texture is also present in the house of I. H. Lionberger, one of the three Richardson houses of which St. Louis can boast; the illustration representing it after the addition of the brick dormers and west wing by another architect.

The best designed brick houses of the period between 1888 and 1895 partake of the general style indicated by these examples, and by the Maverick house, one of the numerous buildings of Peabody & Stearns, who played no inconsiderable part in the architectural development of St. Louis.



KNIGHT HOUSE. E. A. Manny, Architect.

Of a later period the Bixby house by W. Albert Swasey is the most elaborate example of the French Renaissance style of the time of Francis the First; some of its features being traceable to chateaux of that magnificent period. It was one of the earliest houses wherein extensive use was made of terra-cotta for ornamental detail, and withal is the best and most interesting example of a style whose more frequent use might have been naturally suggested by the early French history and traditions of St. Louis.

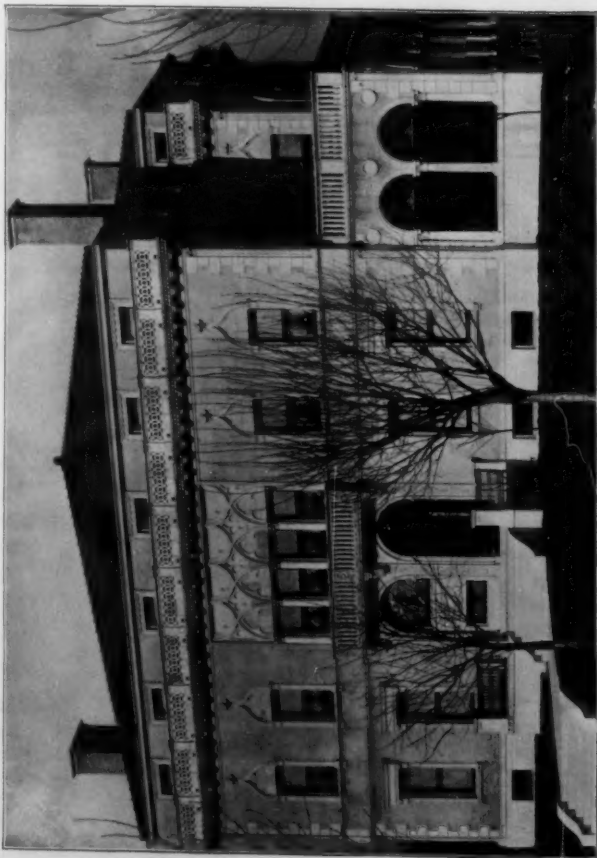
In the Siegrist house the same architect has shown versatility in a wholly different style — more formal and restrained, as befits Colonial design, but less interesting except for the brickwork, which is cream white with a surface simulating tooth-chiseled work. It is this type of house, on a somewhat smaller scale, that has predominated in recent years, although the same general plan is frequently clothed with the forms of the Italian or French Renaissance.

The Drummond house by Stewart, Mullgardt & McClure exhibits a marked departure in brickwork, which in this instance is somewhat rough and of a pinkish tone, with a diapered pattern in the frieze of the building. The design is as thoroughly good as the brickwork is pleasing in color and texture.

Evolution obtains in architecture as in other things, one type developing a slightly different type, but no one type has persisted for any great length of time in St. Louis. The numerous "Colonial" houses are anything but true Colonial in feeling, few of them being invested with the reposeful quality of the best prototypes; the Brookings and Graham houses, heretofore illustrated in this journal, being the best examples in this style, and all of them lack one of the chief characteristics of old Colonial brickwork, Flemish bond.

During late years the style appealing to many designers is the style — for want of a more descriptive term — denominated English Domestic. No better example exists in the city than the Schwab house by Mauran, Russell & Garden. It shows intelligent study of the style, which is well maintained in all parts of the design. The detail of the beautiful entrance porch and doorway conveys a better idea of the brickwork, which is a pink-





NORTHROP HOUSE.  
W. Albert Swasey, Architect.



STERLING HOUSE.  
Eames & Young, Architects.



ACKERT HOUSE.  
G. C. Mariner, Architect.



SCARRIT HOUSE.  
E. A. Mann, Architect.

BRICKWORK IN ST. LOUIS.



LIONBERGER HOUSE. H. H. Richardson, Architect.



McKITTRICK HOUSE. Shepley, Rutan &amp; Coolidge, Architects.



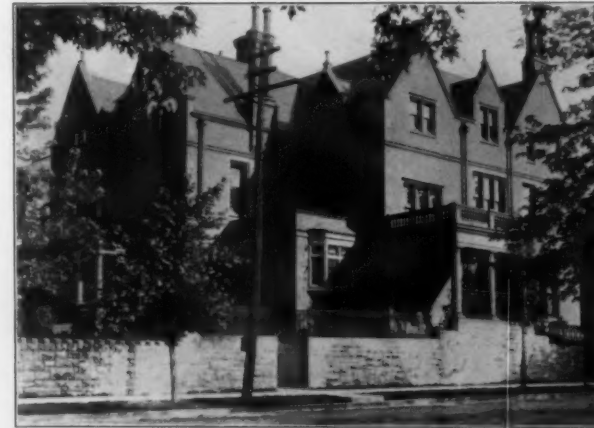
NIEDRINGHOUSE COTTAGE. T. C. Link, Architect.



SCHWAB HOUSE. Mauran, Russell &amp; Garden, Architects.



FINLEY HOUSE. E. A. Manny, Architect.



CASTLEMAN HOUSE. Renwick, Aspinwall &amp; Owen, Architects



DEWOLF HOUSE. Eames &amp; Young, Architects.



BIXBY HOUSE. W. A. Swasey, Architect.

BRICKWORK IN ST. LOUIS.





DRUMMOND HOUSE.  
Stewart, Mullgardt & McClure, Architects.



SCOTT HOUSE.  
Shepley, Rutan & Coolidge, Architects.



HOUSE ON LINDELL AVENUE.  
A. Blair Ridington, Architect.



HOUSE ON BERLIN AVENUE.  
Weber & Groves, Architects.



DAVIS HOUSE.  
Shepley, Rutan & Coolidge, Architects.



MAVERICK HOUSE.  
Peabody & Stearns, Architects.

BRICKWORK IN ST. LOUIS.

ish sand mould brick with grayish headers laid in white mortar, the base below the water table being a red sand mould brick with black headers laid in black mortar.

The McKittrick and Scott houses by Shepley, Rutan & Coolidge and J. Lawrence Mauran are earlier examples in the same style; very good and interesting in a somewhat different way, but less pleasing in composition and brickwork than the Schwab house.

More individual than the last named houses, the Sterling house by Eames & Young was also the first St. Louis house in which half-timbered work was used. The design is pleasing in every way and is invested with a distinction that would make it notable anywhere, — a characteristic that would also apply to the stable. No attempt was seemingly made to adhere to the English feeling in all parts of the design, with the result that a more personal performance has resulted than by a closer adherence to conventional forms and mouldings. The wall surfaces have been enlivened by the random introduction of Roman brick of a darker color than the mottled yellow brick of which the house is built.

The Castleman house by Renwick, Aspinwall & Owen is a typical and well-sustained effort in the same style,

local flavor to a house that bears a strong resemblance to a type common in St. Louis before the war. It is well not to ignore such a characteristic when much can be said for the restraint and general good taste that marked the houses of that period. The unusual brickwork, however, is personal to the architect, and is laid in the most unorthodox manner, — every fourth course being laid on its face and in a way that does not admit of the joints being regularly broken. The brick is a speckled red laid in black mortar.



WAINWRIGHT HOUSE. C. K. Ramsey, Architect.

and while it exhibits many beautiful and picturesque features, it suffers from the somber color of the dark red brick and terra-cotta, which lessens the homelike character that should distinguish a dwelling place.

The revival of the use of Flemish bond with black headers has added greatly to the interest of the Mariner house, a very small but none the less pleasing example of a style destined to grow in favor for city and country houses.

The Scarrit house by E. A. Manny is a very dignified and formal composition, built of a speckled red brick laid in red mortar, with trimmings of cream-colored terra-cotta; more imposing but less interesting perhaps than his smaller Finley and Knight houses, which are good examples of his style, a style that possesses individuality and exhibits much study of the possibilities of brickwork, a quality not easily shown in the photographs.

In the Papin house M. P. McArdle has imparted a



PAPIN HOUSE. M. P. McArdle, Architect.

The same general type of house finds exemplification in the Ackert house by G. C. Mariner, but with the Colonial idea well expressed instead of the "old St. Louis" of the Papin house. Here a reddish sand mould brick laid in white mortar accentuates the Colonial feeling and imparts interest to the brickwork for its own sake, and consequently to the attractiveness of the design.

The Northrup house by W. Albert Swasey is perhaps more interesting for its departure from the conventional house than for its being a very successful example of Venetian Gothic — a style that seems foreign to American life and one that demands the setting we naturally associate with the style. The brickwork is cream in color, with trimmings of glazed white terra-cotta.

Of houses that are somewhat difficult of classification the small Wainwright house by Charles K. Ramsey shows a clever adaptation of Sullivan's intricate detail in terra-cotta. The Niedringhouse cottage by Theodore C. Link is unconventional enough to please the most extreme advocate of rough brickwork, for here vitrified paving brick have been laid in all sorts of ways; nevertheless it is a most picturesque house and admirably placed for such a design.

While this list might be extended indefinitely, — for notwithstanding the mass of mediocre work, St. Louis possesses a large number of meritorious houses, — consideration of other classes of buildings demands the space at disposal.



## The Business Side of an Architect's Office. V.

BY D. EVERETT WAID.

"WHEN New York architects can charge *more* than five per cent, then we smaller fellows can hope to make our clients pay us five."

Such a remark at the recent convention of the Institute in Washington led the writer to believe that if a more definite knowledge could be had of the actual fees charged for architects' services, it might be of value to the profession at large. Every architect is keenly alive to the fact that the traditional five per cent is small enough compensation for his services. When clients come to know the amount of work and responsibility involved they are quick to admit that an architect is not highly paid and are doubtless just as ready to lose respect for a member of the profession who cuts his price. Architects have only themselves to blame if they do not receive their full fees.

Competition is the life of architecture as truly as it is of trade, but who can regret it deeply enough when competition among professional men and artists becomes a matter of price! Let a client select an architect because of his reputation, because of the merit of his design, because of his engineering ability, because of his talking ability, or, if you will, by reason of his "pull," but save us from the decision which sometimes is made because he cuts his fee! The last named kind of competition may be done away with if architects will have backbone and consideration for each other when the question of fee arises. Hundreds of young architects are realizing that clients respect them for standing on their dignity in the matter of fees, and that their business is increasing accordingly.

It is true that there are scores, yes, hundreds, of apartments, hotels and even residences going up at this moment in New York City on which two per cent and even less has been paid for architects' services. But these are the work of plan factories for speculative builders; both the plan factories and the builders are making money but are not making good buildings. Artistically their products are commonplace when not worse; structurally they are as bad as the law will allow and investors can be deceived into buying or securing by foreclosure. Fortunately the influence of the real architect is increasing even with the speculative builder; and other scores and hundreds of buildings have five per cent for architects' fees set down as a part of the cost which will bring back interest on the investment. Architects whose names are known to the profession charge five per cent and in their practice it is a matter of course that five per cent will be the minimum fee even when the cost runs into millions.

Special inquiry shows that a similar statement can be made not only of New York and other large cities of the East, but of cities in the West and of smaller towns. Information obtained at various times during a series of years convinces the writer that a large majority of the young men of the profession stand to the dignity of their calling in the matter of their charges and in refusing to receive commissions from material men and contractors.

The standard is not so high in the ethics of securing business, but one is pleased to find how many architects are ready to state in the most unequivocal way that they never submit sketches without compensation and that they never enter competitions in which either no fee is paid to the various competitors invited or no prizes are offered aside from the commission.

As to the scale of charges the traditional five per cent ought to be fought for more generally as a minimum, not a maximum fee. Five per cent is so popularly regarded as the acceptable charge that it is no doubt a frequent thing for architects to agree to four per cent on factories which clients can see must be less costly than residence designing. Many, however, like J. C. Llewellyn of Chicago, charge five per cent for factory work. Nimmons & Fellows of the same city say that their charge is invariably five per cent for factories. Since many people who have had little to do with building have the impression that five per cent is a high price to pay even for residence work, it might be of practical value to the younger men to know that a large number of the profession either decline that class of work at that rate or increase the rate on residences costing less than a certain sum.

Normand Patton of Patton & Miller, Chicago, writes: "Our charges are five per cent for the general run of work, without regard to the amount of cost; seven and a half per cent for residence work without reference to the cost; ten per cent for alterations and additions to residence work; seven and a half per cent for alterations and additions to the ordinary run of work. We have recently planned a manufacturing building for which we charged five per cent. We have made alterations on another factory for which we charged seven and a half per cent. We have just completed alterations on a residence amounting to \$40,000, for which we got ten per cent."

According to the schedule given at the end of this article twenty per cent would be the charge for alterations of residences if the work amounts to less than \$5,000. Under some circumstances that might not be too much, but in general Mr. Patton's rate would be more practicable.

If residence work in general is costly to an architect, suburban work in New York is decidedly expensive. Consequently one cannot come out whole if he does not nearly double his fee by charging for time for supervision. Following is a copy of an actual bill for services on a house which shows how monthly bills are rendered during the progress of a building:

November 1, 1902.	
A. B. BLANK, 1 Wall Street, New York,	To C. D. TEESQUARE, Dr.
Account rendered October 1, 1902.....	\$292.37
Estimated cost of plumbing for entire house.....	\$6,800.00
Architect's full commission 5 per cent, 2½ per cent charged for plans, specifications, etc.....	170.00
Contract electric work.....	\$698.00
Architect's full commission 5 per cent, 2½ per cent charged on account.....	17.45
Certificate Issued.	
October 15, Several Works Contract, first payment ..	\$5,000.00
Architect's full commission 5 per cent, 2½ per cent paid on account, 2½ per cent due.....	125.00
Half-day visits during October, five one-half at \$10.00.....	55.00
Traveling expenses during October.....	5.00
	\$664.82

NOTE.—In this instance the owner paid sanitary and electrical engineers on architect's certificate, and the architect's charge of 5 per cent covers his own fee only.

Mr. Mead, of McKim, Mead & White, says that their schedule is not satisfactory. For some kinds of work they have to charge more than the schedule or refuse the work. Speaking specifically they decline commissions for residence work under \$20,000 unless it is for a friend to whom they are ready to make a gift. Their schedule is similar to a form used by many, — five per cent in general, but ten per cent for "cabinet and all interior work of a decorative character, for furniture and fixtures, and for materials selected, for alterations, additions, etc., for monumental work, and for new work costing under \$10,000." The following clauses are included in their schedule: "All commissions are exclusive of clerk of works, time lost in traveling, traveling expenses and disbursements, which will be charged to the client at cost; or if preferred, at an extra rate of three per cent." . . . "The minimum charge per day for personal service is \$100." . . . "In preparing designs we agree, after consultation with the owner, to use our best judgment; we cannot, however, guarantee that the building when completed shall conform to his ideas of beauty or taste, or indeed those of any person or school. We can only agree to examine and consider the subject thoroughly and to do nothing which is inconsistent with our judgment." . . . "We insist upon the employment of the best men for heating, plumbing and electric works; and such work can be guaranteed only by the employment of experts by the client." McKim, Mead & White issue certificates to owners for payment of experts' fees.

Following is given the schedule of charges, printed copies of which are issued to their clients, by Carrère & Hastings:

#### SCHEDULE OF PROFESSIONAL PRACTICE AND CHARGES.

##### CITY PRACTICE.

(New York and other cities.)

General services and supervision for works costing over \$50,000 . . . . .	5 per cent
General services and supervision for works costing less than \$50,000 . . . . .	6 per cent
General services and supervision involving alterations . . . . .	10 per cent
Special interior and cabinet work . . . . .	10 per cent

##### COUNTRY PRACTICE.

General services and supervision for new work . . . . .	7½ per cent
General services and supervision involving alterations . . . . .	15 per cent
General services and supervision for landscape work . . . . .	10 per cent

##### PUBLIC WORKS

(And buildings for public and semi-public use.)

General services and supervision for new work . . . . .	5 per cent
General services and supervision involving alterations . . . . .	10 per cent
Special interior and cabinet work . . . . .	10 per cent

##### DISBURSEMENTS.

All disbursement for traveling expenses, measurements, surveys, fees for expert advice when requested or sanctioned by the owner, and the cost of all prints, to be paid by the client.

##### PARTIAL SERVICES.

Payments are due as follows:

Preliminary studies, one-fifth of the total commission.
Preliminary studies, general drawings and specifications, one-half of the total commission.
Preliminary studies, general drawings, details and specifications, seven-tenths of the total commission.

##### GENERAL PRACTICE.

Charges are based upon the entire cost to the client of the work, when completed, including all the fixtures necessary to render it fit for occupancy.

Until an actual estimate is reached, the charges are based upon the proposed cost of the work.

All payments are received as installments of the entire fee. When the work is abandoned or suspended, the payments are due in accordance with the schedule of partial services.

Supervision means such inspection of the work by the architects or their deputy as is required in their judgment to ascertain that the work is being executed according to plans and specifications, and to determine when the payments are due.

Continuous personal superintendence can be secured by the employment of a clerk of the works, who will be employed by the architects at the client's expense.

Drawings, as instruments of service, are the property of the architects.

All dealings between client and contractors should be through the architects.

In all cases not covered by the foregoing schedule, the schedule of the American Institute of Architects shall govern.

Henry Rutgers Marshall, president of the New York Chapter A. I. A., has devised an interesting scale of charges. Below is an extract from his schedule. This table might be used as the sliding scale referred to in paragraph 1 of the succeeding schedule.

Cost of Work.	Buildings with Walls of Masonry.	Buildings with Stud Walls.
Above \$30,000	5 per cent on cost	5 per cent on cost
\$28,000 to \$30,000	"	\$1,500
26,000 to 28,000	"	1,425
24,000 to 26,000	"	1,350
22,000 to 24,000	"	1,275
20,000 to 22,000	"	1,200
18,000 to 20,000	\$1,000	1,125
16,000 to 18,000	900	1,050
14,000 to 16,000	825	975
12,000 to 14,000	750	900
10,000 to 12,000	675	825
8,000 to 10,000	625	750
7,000 to 8,000	575	700
6,000 to 7,000	550	650
5,000 to 6,000	525	625
4,000 to 5,000	500	600

Alterations at some rates as stud wall buildings with addition to cover expense of making plans of the buildings as they exist.

For work costing less than \$4,000 and for interior decorative work, mantels and furniture special rates are charged.

Plumbing charged apart from main fee at ten per cent on cost unless a special expert is employed; in the latter case plumbing cost will be included in cost of building in calculating fees.

Some two years ago, after careful consideration of the schedules used by several prominent architects including those named above, a pamphlet was prepared which with some slight modifications is reprinted below. It was designed to make clear to clients the view point of architects and at the same time to provide a definite basis for a contract between architect and client. The mailing of one of these pamphlets (printed of size to slip into a regular envelope) with an exchange of letters regarding fees for architects' services is less disagreeable than a formal contract, which is often quite out of the question.

#### PROFESSIONAL PRACTICE AND CHARGES.

1. *General Practice.* — The charge for general professional services on works costing over \$20,000 is a commission of five per cent on the cost.

The charge for general professional services on works costing \$5,000 or less is a commission of ten per cent on the cost.

The charge for general professional services on works costing between \$5,000 and \$20,000 is on a sliding scale between the rates quoted above.

2. *Alterations.* — For alterations or additions to existing buildings the fee is double the foregoing.



3. *Monumental and Decorative Work.*—For monumental work and for interior decoration, mantels and furniture special rates are charged according to the character of the problem.

4. *General Services.*—All of the following requirements are included in the commission for general professional services:

Preliminary studies.

Working drawings and specifications sufficient for estimate and carrying out of contracts.

Detail drawings and instructions for execution.

General supervision of works.

Examining and passing of accounts.

5. *Partial Services.*—For partial services the following division of the general commission is made:

For preliminary studies one-fifth of the general commission.

For preliminary studies, general drawings and specifications, one-half of the general commission.

For preliminary studies, general drawings, specifications and details, seven-tenths of the general commission.

For supervision, three-tenths of the general commission.

Payments are due as the work is completed in the order of the above classification.

6. *Traveling Expenses, Disbursements, etc.*—For work situated outside of New York City a fee is charged to cover actual traveling expenses and time occupied in visiting the work either for conference or supervision. The fee for visits by the architect is at the rate of \$30 per day; for visits by his superintendent at the rate of \$15 per day.

All disbursements for measurements, surveys, etc., are to be paid by the client.

7. *Expert Service.*—A commission of five per cent in addition to the scale named above is charged on all heating and ventilating, sanitary, electrical and mechanical engineering work. Experts of the highest standing are retained by this office, and are in constant consultation during the design and execution of its work. The employment of experts for other special branches of work is a matter of arrangement between the client and the architect.

8. *Decoration and Furniture.*—In view of the fact that the artistic success of a building, and therefore the reputation of the architect, depends upon the decorative treatment of the interior, the execution of this part of the work as well as that of the exterior is understood to be under his direction and supervision. Furniture and furnishings come within the same category unless it be distinctly agreed to the contrary.

9. *Basis of Charges.*—All commissions are based upon the total cost of work completed ready for occupancy, and valued as if executed entirely of new materials and by labor at the market price. Until estimates are made or contracts entered into, charges are based upon the proposed cost.

10. *Alterations in Designs.*—An extra charge will be made if the client orders material alterations in working drawings after such drawings have been made in accordance with designs approved by him.

11. *Special Services.*—None of the charges above enumerated cover professional or legal services connected with negotiations for site, disputed party walls or right

of light, or services incidental to arrangements consequent upon the failure of contractors during the performance of the work. When such services become necessary they will be charged for according to the time and trouble involved.

12. *Drawings and Specifications.*—All drawings and specifications, as instruments of service, are the sole property of the architect and may not be used in connection with any other building without his consent. One copy of each drawing and specification will be furnished and a charge at actual cost will be made for all prints needed in the execution of the work.

It is understood that each contractor shall be supplied with two copies of drawings and specifications, and that he shall be required to pay for any extra copies desired by him.

13. *Consultation.*—Consultation fees in cases where the work is not executed are based upon the importance of the services rendered.

14. *Supervision.*—The superintendence of the architect (as distinguished from the continuous personal supervision or superintendence which may be secured by the employment of a clerk of the works) means such inspection by the architect or his deputy of a building or other work in process of erection, completion or alteration, as in his judgment is necessary to ascertain whether it is being executed in conformity with his design and specifications or directions; and to enable him to decide when the successive installments or payments provided for in the contracts or agreements are due and payable.

The architect is to determine in constructive emergencies, to order necessary changes and to define the true intent and meaning of the drawings and specifications, and he has authority to stop the progress of the work and order its removal if he finds that it is not in accordance with them.

It is important that all dealings between client and contractor be transacted through the architect.

When he follows the client's positive instructions the architect is relieved from all responsibility whatsoever.

The architect agrees to use every endeavor to see that the contractors complete their work within the stipulated time, but in no case is it possible for him to guarantee that they will do so.

15. *Subcontracts.*—It is understood that the several works involved in the erection of a building shall be let in a general contract except plumbing, heating, etc. If the client desires to sublet the several works, such as mason work, carpenter work, plastering, etc., two and a half per cent will be charged in addition to the schedule rates hereinbefore named.

16. *Clerk of the Works.*—On buildings of importance, or in any case in which continuous personal superintendence is desired, the architect recommends the appointment of a clerk of the works, who will be employed by the architect at the client's expense, over and above any fees or commissions otherwise due the architect. The selection or dismissal of the clerk of the works is to be subject to the approval of the architect.

17. *Payments to Contractors.*—It is expressly understood that payments to contractors by the client shall be made only upon certificates issued by the architect.

## Fireproofing.

### COMBUSTIBLE ARCHITECTURE AND CONFLAGRATIONS.

UNDER the above title a paper was presented to the Memphis Engineering Society by Mr. James B. Cook, in which the subject was very thoroughly taken up and some interesting statistics given. Statistics, by the way, while always interesting, are not necessarily the surest guide to facts, for in them we consider simply an abstract statement without taking into account the conditions or other circumstances which might offset the seeming good or bad results from which such statistics were derived. For example, the statement is made that while in France the loss from fire in each one hundred dollars per year was about six cents, in New York the relative loss was fifty-eight cents, in Massachusetts sixty cents, in Texas one dollar ten cents, and Arkansas one dollar thirty-one cents. And yet the loss in the latter state may be confined to a class of buildings which might well be spared from the face of the earth and for whose loss we might feel really grateful to the insurance companies. At the same time these figures show how with all our attempts at fireproof construction, and we certainly have carried it further as a science than anywhere else in the world, we somehow or other still continue to pay tremendous annual bills for lack of proper preventive measures. We fight our fires admirably after they are started, but we should not let them start. Every year more attention is paid in the large cities to the so-called still alarms which the public never hears about, because a possible great conflagration is checked in its incipency. And as the writer of the paper very truly points out, the strength of a fireproofing system is measured by its least resistance. There are very few of our fireproof buildings today which are not most thoroughly protected as far as relates to all the structural members, the floors and the walls, but the weak point is in the plan itself, which often permits of a ready transference of a slight fire from one portion of the building to another until the resulting conflagration is sufficient to cause very serious damage. Furthermore, as we have repeatedly insisted in these columns, the greatest source of danger is not from our well constructed buildings, but rather from our old inflammable structures which are allowed to remain in the heart of our large cities. Mr. Cook made a very admirable suggestion that instead of the sole reliance being placed upon portable fire pumps, the large cities be divided by a species of block system with a stationary fire engine in the centre of a square, with three or four firemen on duty, a hose attached and a large fire pump driven by an electric motor. By this method instantaneous service would be given at the first alarm. Attacking a fire at its incipency is a most important thing, and such a system could very easily be connected to a chain of standpipes which would practically serve every portion of the area. Preventive devices of this sort are most needed now. We would not say that constructive methods could not be improved, for improvement is going on all the time, but the theory of fireproof construction at

present is pretty well established and developments are in details of execution, ease of manipulation and reduction of cost rather than in the theory.

### THE FAILURE OF A FIREPROOF FLOOR.

WE note by the papers a record of the collapse of a portion of the concrete roofing of a building under construction in Newcastle, Pa., which in falling carried down each of the six floors beneath it to the basement, killing one man and seriously injuring another. Accidents of this sort will occur with the utmost care, no matter what the particular form of construction may be, and with a monolithic construction such as concrete the carelessness of a single indifferent workman might very easily make the whole floor construction so poorly compounded that it would yield to a relatively slight shock. We are reminded of a somewhat similar accident that occurred during the building of Tremont Temple, when a mass of plaster in bags, the whole weighing several tons, fell through a distance of about sixty feet with sufficient force to bend two heavy I-beams out of position and shatter an irregular hole in the terra-cotta blockings, but the damage was confined to the few blocks which were broken, and the bay upon which the plaster fell was not otherwise injured.

### THE INSURANCE COMPANIES.

WE are not accustomed to consider the insurance companies as members of a great trust, but in a certain sense that designation would exactly describe them. There is a sort of competition among the agents of the large fire insurance companies who underwrite risks, but competition is not one of rates. The rates are made in common, are discussed by an associated board and are practically identical over the whole country. We are not of those who believe that the fire insurance companies are accumulating great rewards in their work. Many of them pay and pay well, but the average margin of profit at the best is small, the risks are great and they are fulfilling a public function which in as far as relates to keeping their promises and insuring a man against his own folly is scrupulously adhered to. But in their capacity as public servants it has seemed to us that they fail utterly to realize their rights and their powers, and we sometimes seriously question whether, after all, the fire insurance companies care to have the fire risk reduced or the tremendous annual payment for fire losses made any less. We have yet to see any real evidence that the national boards of underwriters feel it incumbent upon them to foster the development of a proper fireproofing system of construction. That the insurance companies have it within their power to compel owners to properly construct their buildings goes without saying. There is no law that fixes their rates but their own judgment, and if they so chose they could to-morrow make the rates on a combustible building so excessive that the owner would not dare to carry insurance. We have in mind now a theater located in the heart of a large city, which is a veritable fire trap. The rate is seven and a half per cent per annum. But the building is old and worthless. It was equipped under conditions which would not be tolerated in a new structure, and consequently as the owners



are doing a thriving business this structure remains as a menace to the whole community, and its existence in a sense is due largely to the attitude of the insurance companies. If they were to absolutely refuse to reinsure it, the building would disappear inside of a year, and a menace to the community would be gone forever. Furthermore, reversing the attitude of some of our railroad magnates, insurance rates are not made all that the traffic will bear, but are reduced to the lowest amount that they dare to make them. It is a question, therefore, whether the insurance companies want to encourage better construction, and we believe the evidence on this point is in the negative. If all our buildings were fireproof, the insurance companies would either grow fabulously rich or would do no business at all. And apparently they endeavor to so set their premiums that the insured can safely gamble on his chances without being obliged to pay prohibitory rates.

#### THE INTERNATIONAL FIRE PREVENTION CONGRESS.

THE excellent work which in past years has been accomplished by the British Fire Prevention Committee is to be supplemented by an international congress to be held June 7 to 10 of this year at London. It is rarely that those concerned in the different interests relating to fire prevention have an opportunity to discuss collectively their views, and it is hoped that, by bringing together the various personal elements in fire prevention, collecting the best information, discussing the latest achievements, and recording the most practical technical results, some advance will be made, not only in checking fire wastage, but in reducing loss of life. We notice that among other points to be especially considered will be the best means of watching and inspecting buildings exposed to fire risk and of recording the causes and effects of fire. These are two features which are often neglected, but from which we can sometimes draw our most valuable lessons. Eternal vigilance is the price of safety. At no time can we afford to assume that because a building has been constructed rightly it will be taken care of properly, and we know from long experience that both tenants and those who have the care of the building are very apt at times to relax their vigilance and allow conditions to exist which would be fatal if accompanied by even a slight fire. It is to be regretted that there is not in this country such a body as the British Fire Prevention Committee. Attempts have been made in this direction, but our practical scientists are too busy and our theorists are too impractical to unite in the kind of work which such a committee would imply. We want the best and we generally mean to obtain it, but if there could be a greater opportunity for comparison of methods and results fireproofing as a practical science would certainly be greatly benefited thereby. We shall await with a great deal of interest the publication of papers which will be presented at this congress. We notice that the executive committee, of which Edwin O. Sachs is the chairman, includes six architects out of a total membership of eleven. The foreign correspondents from the United States are Mr. Edward Atkinson, of the Manufacturers' Mutual Fire Insurance Company, and N. P. Gerhard, consulting engineer, New York.

## Selected Miscellany.

### NEW YORK.

There seems to be no reason to expect a diminution of building activity during 1903. The number of office and business buildings erected will probably exceed that of the past year, the number of tenements and apartments will certainly do so, and the building of apartment hotels and dwellings will doubtless continue actively. The price of building materials is so high that any excessive building will be discouraged, but dealers and manufacturers of materials can count upon a demand at least equal to that of the past two years and probably superior to it, and this



DETAIL BY MARCUS T. REYNOLDS, ARCHITECT.  
New York Architectural Terra-Cotta Co., Makers.

quite apart from the demand for structural steel and other materials, which will be occasioned by the important improvements in transit facilities which are now under way or contemplated. Moreover the building of the next few years will be more diversified than it has been during the past two years. The prospects for future work are bright and indefinitely large.



CAPITAL EXECUTED IN TERRA-COTTA BY AMERICAN  
TERRA-COTTA & CERAMIC CO.  
Kees & Coburn, Architects.

In spite of the large amount of work accomplished during the past year the figures and statistics given by the *Record and Guide* show a peculiar state of affairs. In the number of new buildings projected and their estimated cost the year 1901 was decidedly ahead of the year just closed. There were plans filed in 1902 for 1,703



HOUSE AT CHICAGO.

Built of White Enameled Brick. Made by Tiffany Enameled Brick Company. F. W. Perkins, Architect.

buildings to be erected in Manhattan and the Bronx at an estimated cost of \$88,044,400, against plans for 2,512 buildings to be erected at a cost of \$118,897,820 during the previous year.

The exceptionally high figures for the past two years are due chiefly to the increased cost of the average dwelling and tenement house erected in Manhattan, but it is also partly due to the augmented proportion of large fire-proof buildings which are being erected year by year.



CAPITAL, EXECUTED IN TERRA-COTTA BY PERTH-AMBOY TERRA-COTTA COMPANY.  
McKim, Mead & White, Architects.

The increased cost of the average building is profoundly expressive of the radical changes which have been taking place in the manner of living and doing business in Manhattan and of the prodigious centralization of population and business.

The Municipal Art Society's report to Mayor Low puts into a form tangible and complete a large number of ideas for embellishing the city, and itself constitutes a fundamental plan, preliminary though it may be, of systematic development for all time to come. It concentrates and embodies suggestions from various other societies of artists, architects, civil engineers, merchants and manufacturers, and on that account, as representing the best advice obtainable at the time, is entitled to the highest respect. It considers everything affecting the beauty of the city, taking up separately freight distribution, passenger traffic, parks, public buildings and their decoration, public monuments and general topics. The great trouble is that all projected developments are met with pleas of economy. New York's location is such that it must become a greater center than the world has ever seen, and although it may mean a great expense and somewhat of a burden to us to make it one of the most beautiful cities in the world, it is perfectly feasible, and as the people are gradually being educated up to it, it will probably eventually be accomplished.

There is probably no influence greater than that of the Architectural League's exhibitions making towards



DETAIL BY VICTOR HUGO KOEHLER, ARCHITECT.  
New Jersey Terra-Cotta Co. Makers.



DETAIL EXECUTED IN TERRA-COTTA BY STANDARD TERRA-COTTA WORKS.  
Clinton & Russell, Architects.

the æsthetic and artistic education of the public in architectural matters and matters of municipal pride. The exhibition, which is now open, shows the usual care in the selection and arrangement of subjects, and is of intense interest to all lovers of beautiful work.





GUASTAVINO SPIRAL STAIRCASE. CONSTRUCTION FOR MAIN STAIRS, UNION CLUB, NEW YORK CITY.  
Cass Gilbert and John Du Fais, Associate Architects.

#### IN GENERAL.

E. L. Stewardson and James P. Jamieson, partners with the late Walter Cope in the firm of Cope & Stewardson, announce that they will continue the practice of architecture under the same firm name.

The sixteenth annual exhibition of the Chicago Architectural Club will be held in the galleries of the Art Insti-

tute from March 26 to April 13 inclusive. Exhibits will be received up to six P. M. March 10. Birch Burdette Long, chairman exhibition committee.

Gustavus A. Trost, architect, has opened an office at No. 9 Coles Building, El Paso, Texas, and desires manufacturers' catalogues and samples.

Frank M. Walker, 24 Park Place, New York City, has been appointed agent for the Hartford Faience Company of Hartford, Conn.



STABLE, 63RD STREET, NEW YORK CITY.  
Ludlow & Valentine, Architects.  
Face Brick made by Kreischer Brick Manufacturing Company.



SECTION OF COLUMN, ATLANTIC TERRA-COTTA CO., MAKERS.  
Parks & Thomas, Architects.

The Star Brand of cement made by the Union Akron Cement Company of Buffalo will be used in the foundations of the new armory for the Sixty-fifth Regiment at



DETAIL EXECUTED IN TERRA-COTTA BY  
WHITE BRICK AND TERRA-COTTA CO.  
Herts & Tallant, Architects.

Buffalo, also for the large new iron manufacturing plants at Hubbard, Ohio, Charlotte, N. Y., and South Buffalo, N. Y.

The American Enameled Brick and Tile Company will supply their enameled brick on the following new contracts: The Maryland State House, Annapolis, Md., Baldwin & Pennington, architects; Baltimore Courthouse, Baltimore, Md., Hornblower & Marshall, architects; St. Francis Hospital, New York City, Shickel & Ditmar, architects. The aggregate of these orders will be about 300,000 enameled bricks.



SHOWING METHOD OF PUTTING ON GRADUATED AMERICAN  
"S" TILE ON CIRCLE ROOFS AND TOWERS. EACH TILE  
IN EACH COURSE IS GRADUATED FROM GUTTER  
TO APEX TO FORM A PERFECT RADIATION.

The American Enameled Brick and Tile Company report an increasing demand for their brick for use in butcher shops and the like in New York City.

The White Brick and Terra-Cotta Company has supplied their terra-cotta on the following new work: Office



DETAILS FOR A CHURCH EXECUTED IN TERRA-COTTA BY  
EXCELSIOR TERRA-COTTA CO.  
George H. Streeton, Architect.

building, Liberty Street, New York, Butler & Rodman, architects; Borden Building, Hudson Street, New York, G. H. Chamberlin, architect; Church of the Good Shepherd, Shelton, Conn., Heins & LaFarge, architects; Randall & Green Building, New Milford, Conn., Wilson Potter, architect; high school, Oneida, N. Y., Wilson Potter, architect; high school, Watertown, N. Y., Wilson Potter, architect; apartment hotel, Forty-third Street, New York, Mulliken & Moeller, architects; mercantile building, Nineteenth Street, New York, Dewey & Dewey, architects; residence, Westbury, L. I., S. E. Gage, architect; apartments, One Hundred and Seventh Street, New York, W. C. Hazlett, architect; residence, Great Neck, L. I., Little & O'Connor, architects; amusement hall, Brooklyn, N. Y., Herts & Tallant, architects; residence, Altamont, N. Y., J. H. Hutaff, architect; apartment, Madison Avenue, New York, H. J. Hardenberg, architect.

WANTED.—AN ARCHITECTURAL DRAUGHTSMAN.  
MUST BE FIRST-CLASS DESIGNER AND WATER-COLORIST.  
PERMANENT POSITION AND GOOD SALARY TO RIGHT PARTY.  
THE KEITH COMPANY, ARCHITECTS,  
MINNEAPOLIS, MINN.

## PERSPECTIVE DRAWING

BY CORRESPONDENCE.

Courses also offered in  
Heating, Ventilation and Plumbing,  
Electrical and Steam Engineering,  
Architecture.

The ENGINEERING curriculum includes Civil, Mechanical, Locomotive and Marine Engineering, Navigation, Mechanical Drawing, Sheet Metal Work.

Main Building, Armour  
Institute of Technology.

In addition to their regular instruction papers, students in full Engineering courses are furnished a Technical Reference Library (in ten volumes) as a help in their studies.

AMERICAN SCHOOL OF CORRESPONDENCE  
AT ARMOUR INSTITUTE OF TECHNOLOGY - CHICAGO, ILL.  
Mention THE BRICKBUILDER.

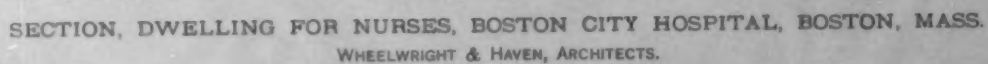
Instruction under  
Supervision  
of  
Members  
of  
the  
Faculty  
of  
Armour  
Institute  
of  
Technology.



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## VOL. 12. NO. 2.

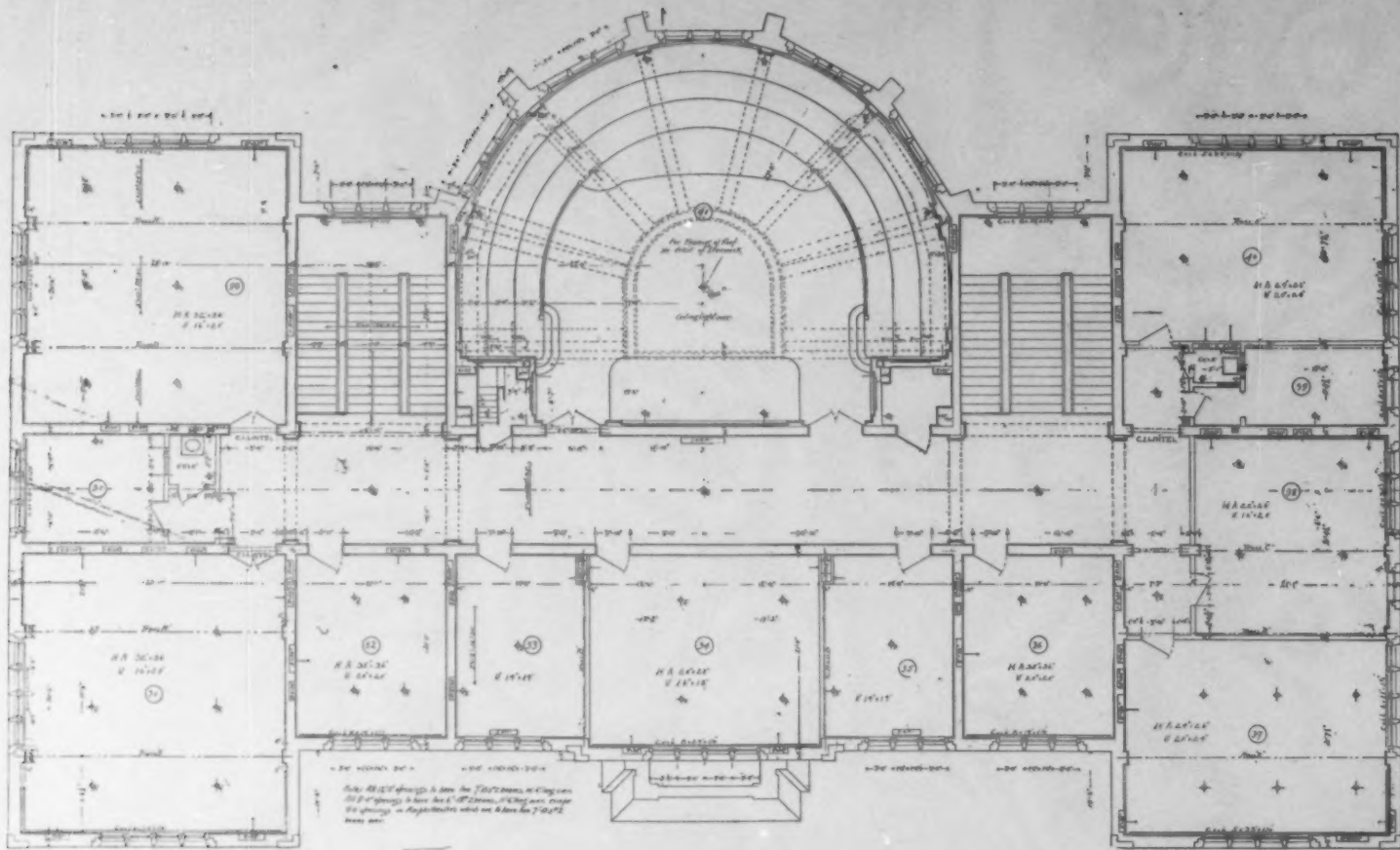
PLATE 9.



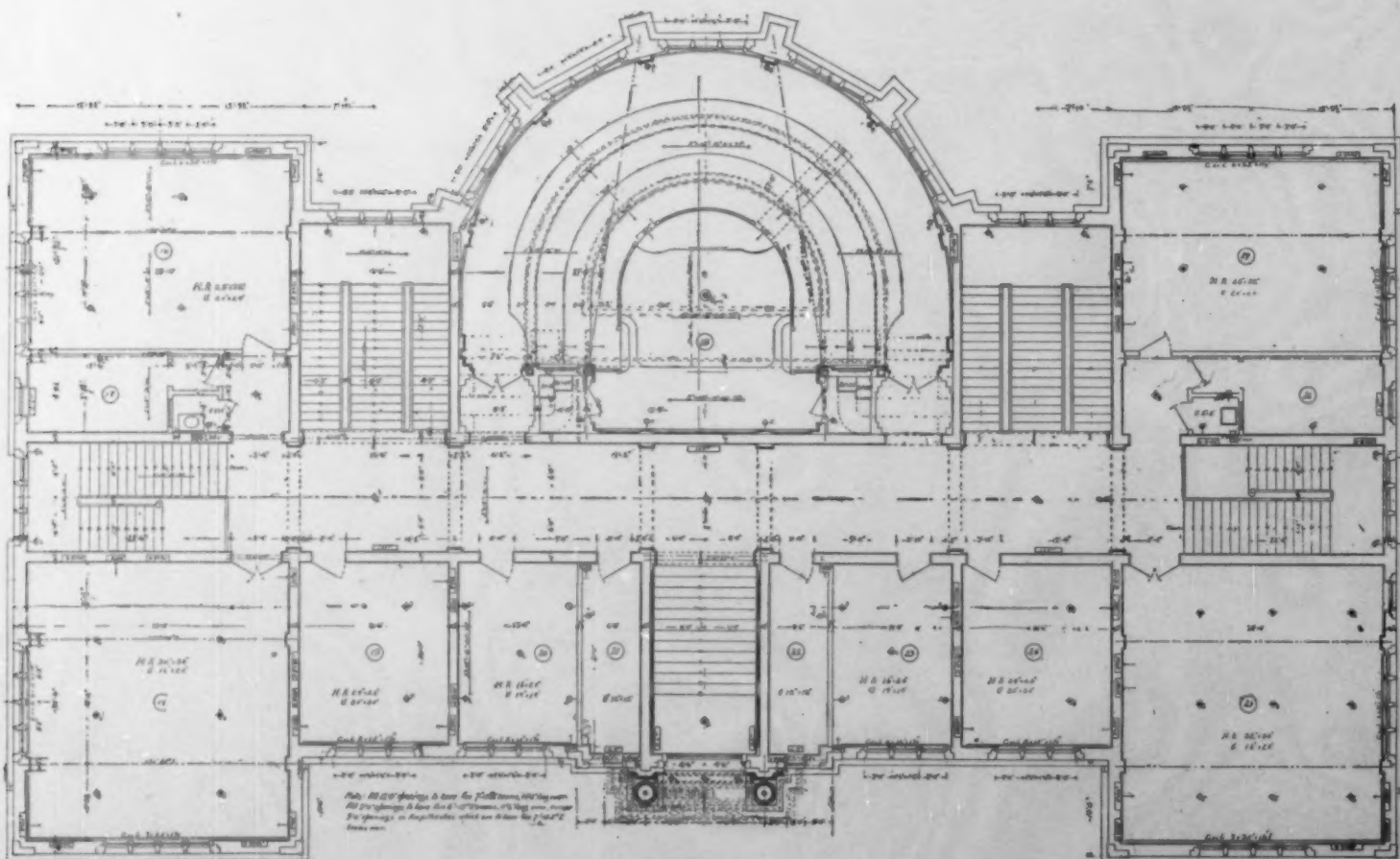
WHEELWRIGHT & HAVEN, ARCHITECTS.



170U



SECOND FLOOR PLAN.



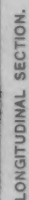
FIRST FLOOR PLAN.

PLANS, RECITATION HALL, VASSAR COLLEGE.

YORK & SAWYER, ARCHITECTS.



M70U

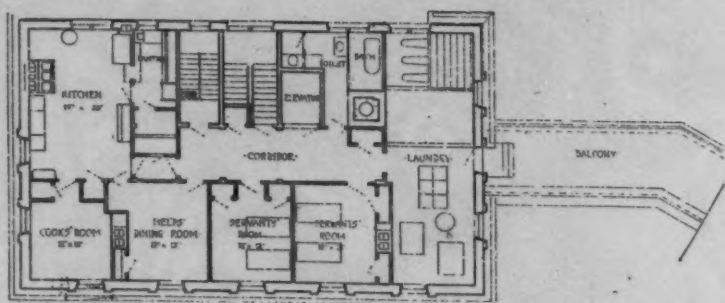
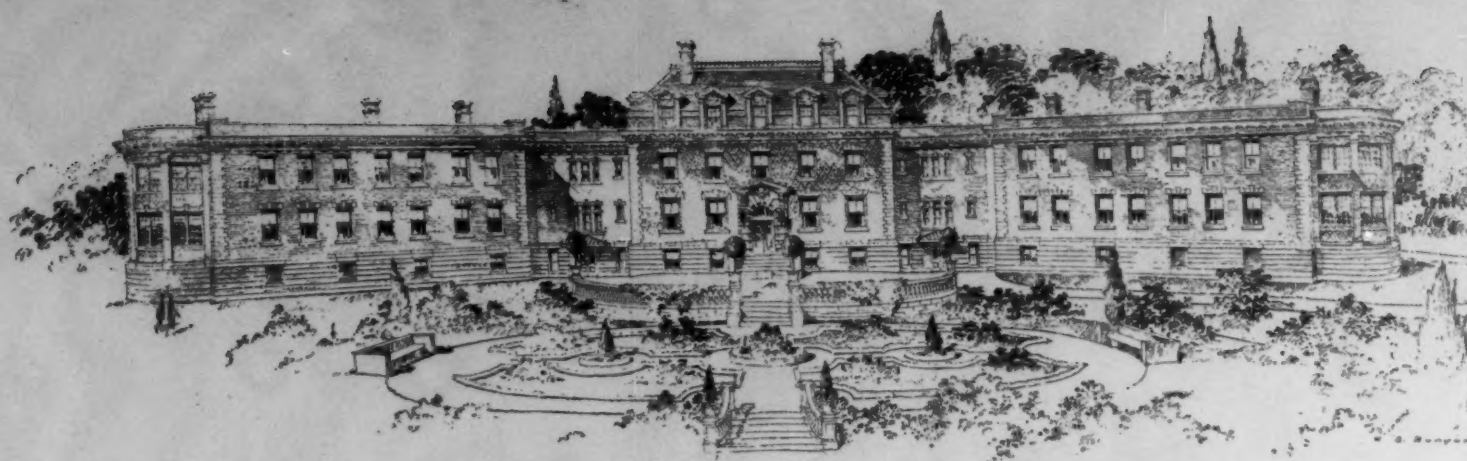


LONGITUDINAL SECTION.

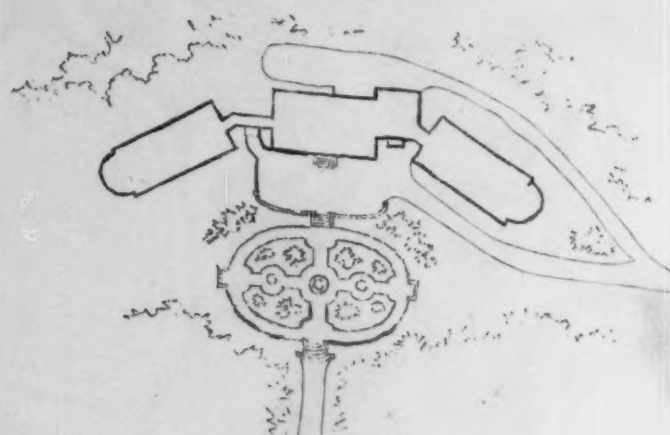
MAJESTIC THEATER, BOSTON, MASS.

JAMES M. WOOD AND JOHN GALEN HOWARD, ASSOCIATE ARCHITECTS.

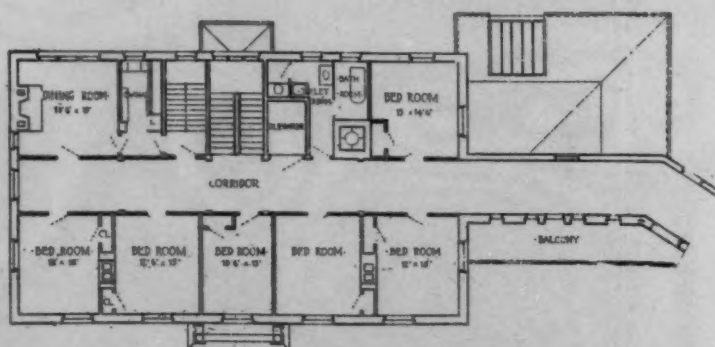




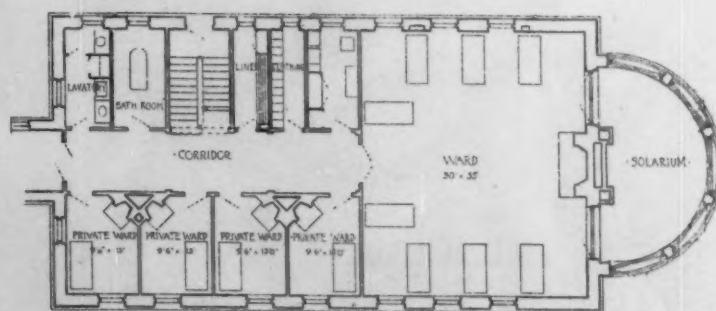
THIRD FLOOR, ADMINISTRATION BUILDING.



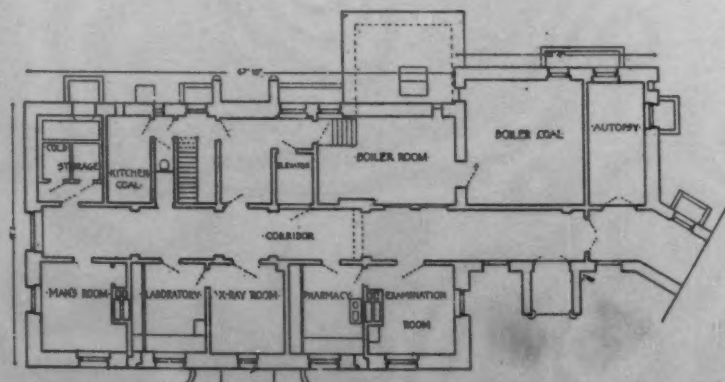
GROUND PLAN.



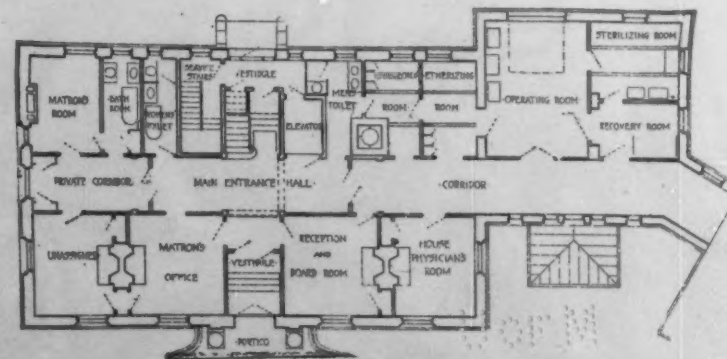
SECOND FLOOR, ADMINISTRATION BUILDING.



WARD BUILDING.



BASEMENT, ADMINISTRATION BUILDING.



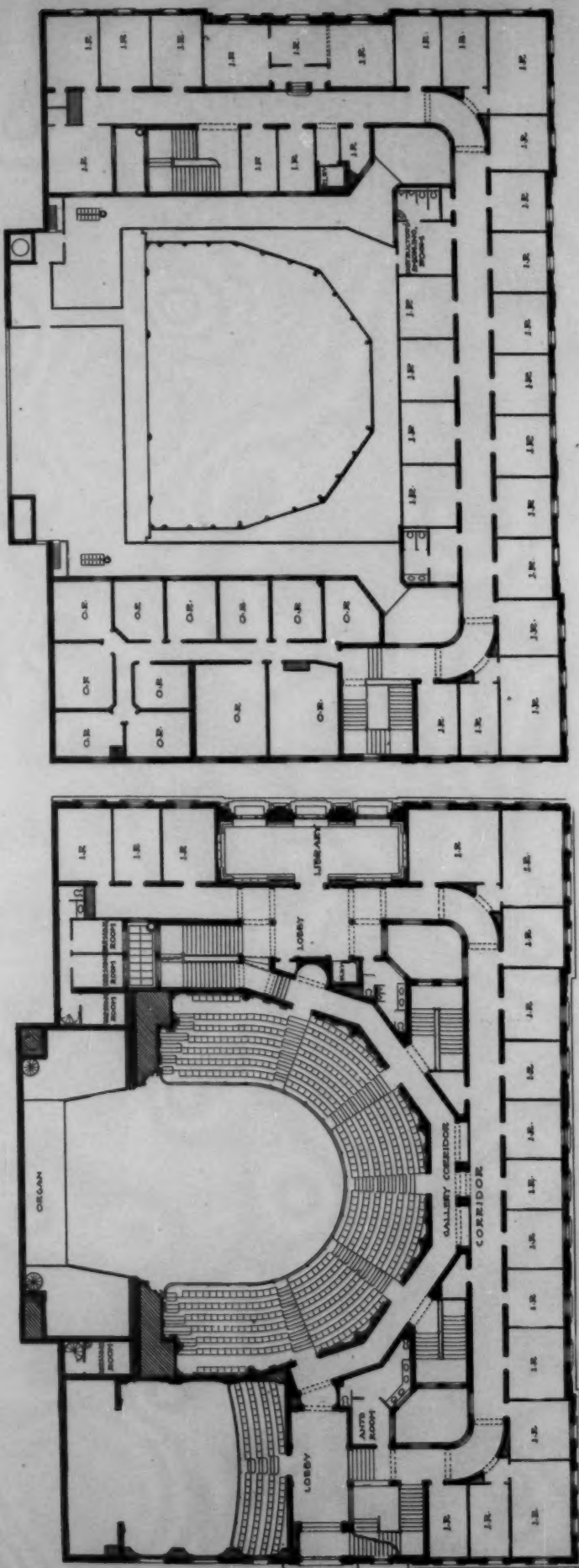
FIRST FLOOR, ADMINISTRATION BUILDING.

FAULKNER HOSPITAL, WEST ROXBURY, MASS.  
KENDALL, TAYLOR & STEVENS, ARCHITECTS.

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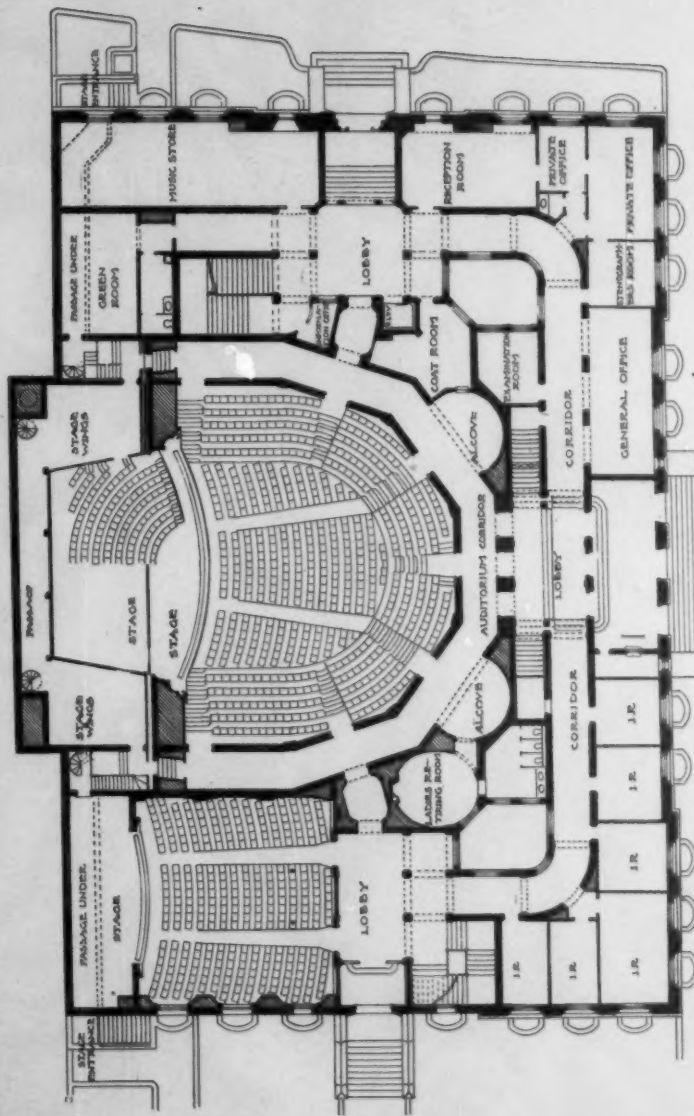
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THIRD FLOOR PLAN

SECOND FLOOR PLAN.



FIRST FLOOR PLAN

I. R. INSTRUCTION ROOM.  
O. R. ORGAN ROOM.

PLANS, NEW BUILDING FOR THE NEW ENGLAND CONSERVATORY OF MUSIC, BOSTON, MASS.  
WHEELWRIGHT & HAVEN, ARCHITECTS.

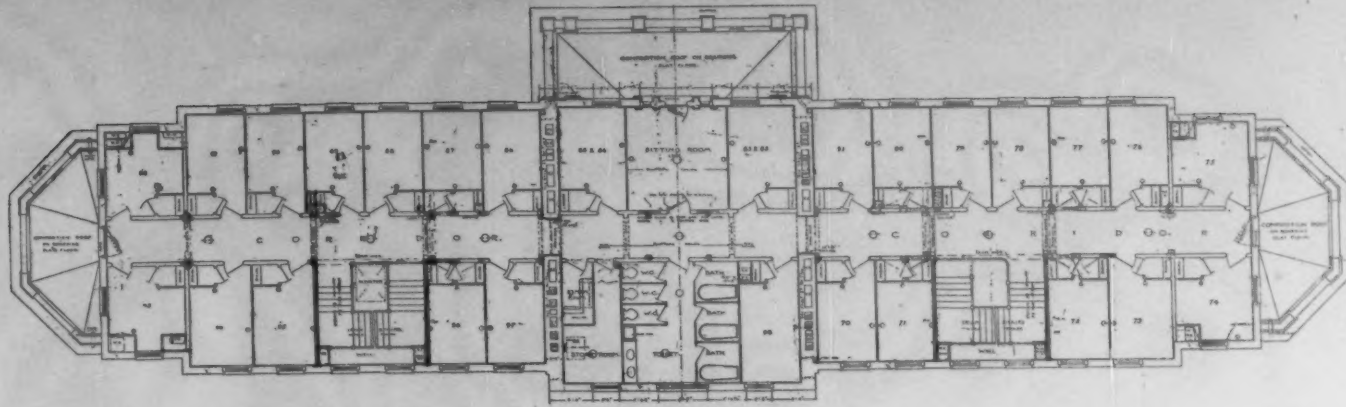
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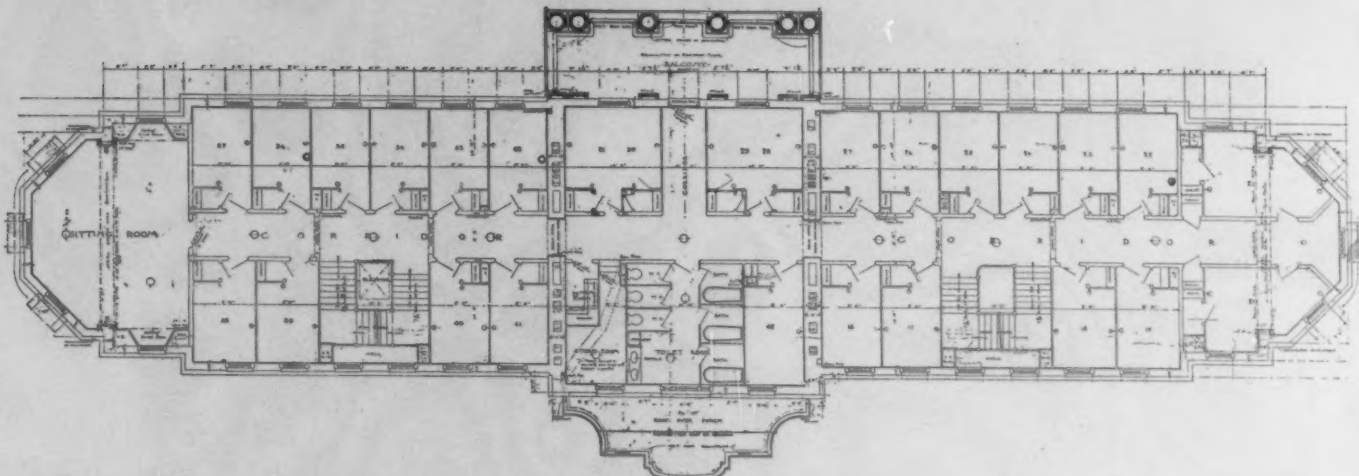
# THE BRICKBUILDER.

VOL. 12. NO. 2.

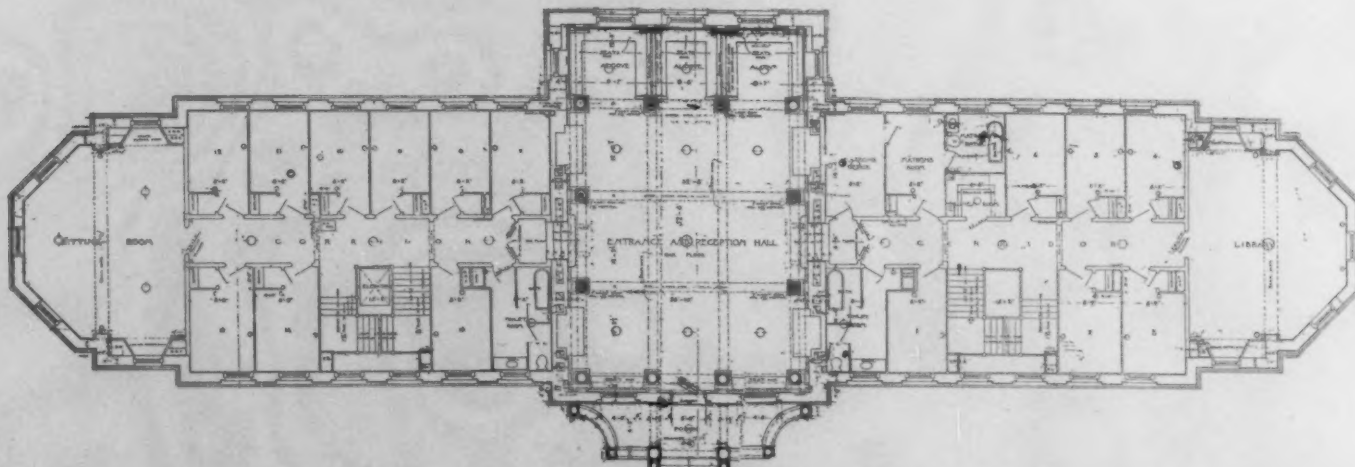
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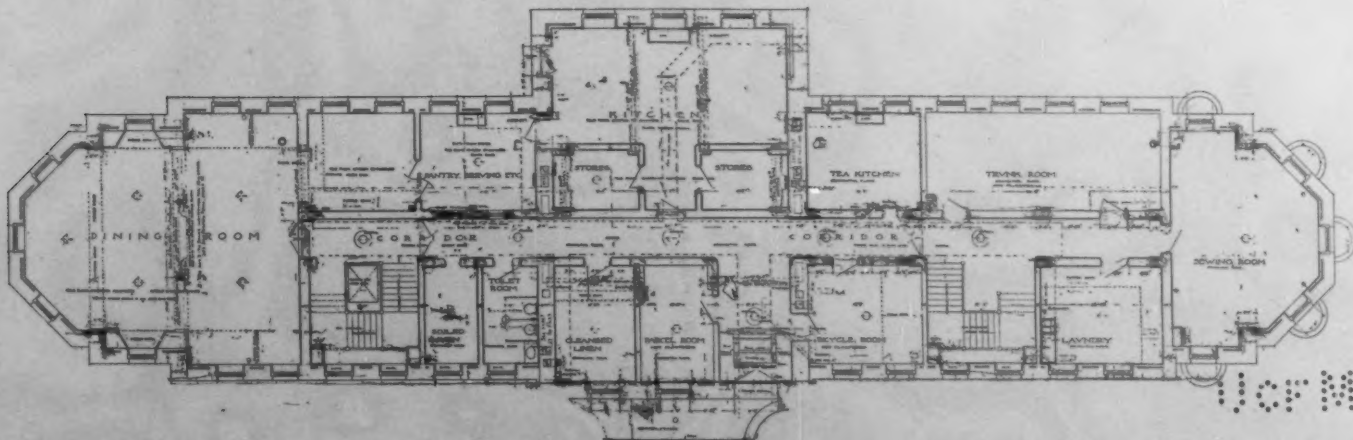
FOURTH FLOOR PLAN.



SECOND FLOOR PLAN.



FIRST FLOOR PLAN.

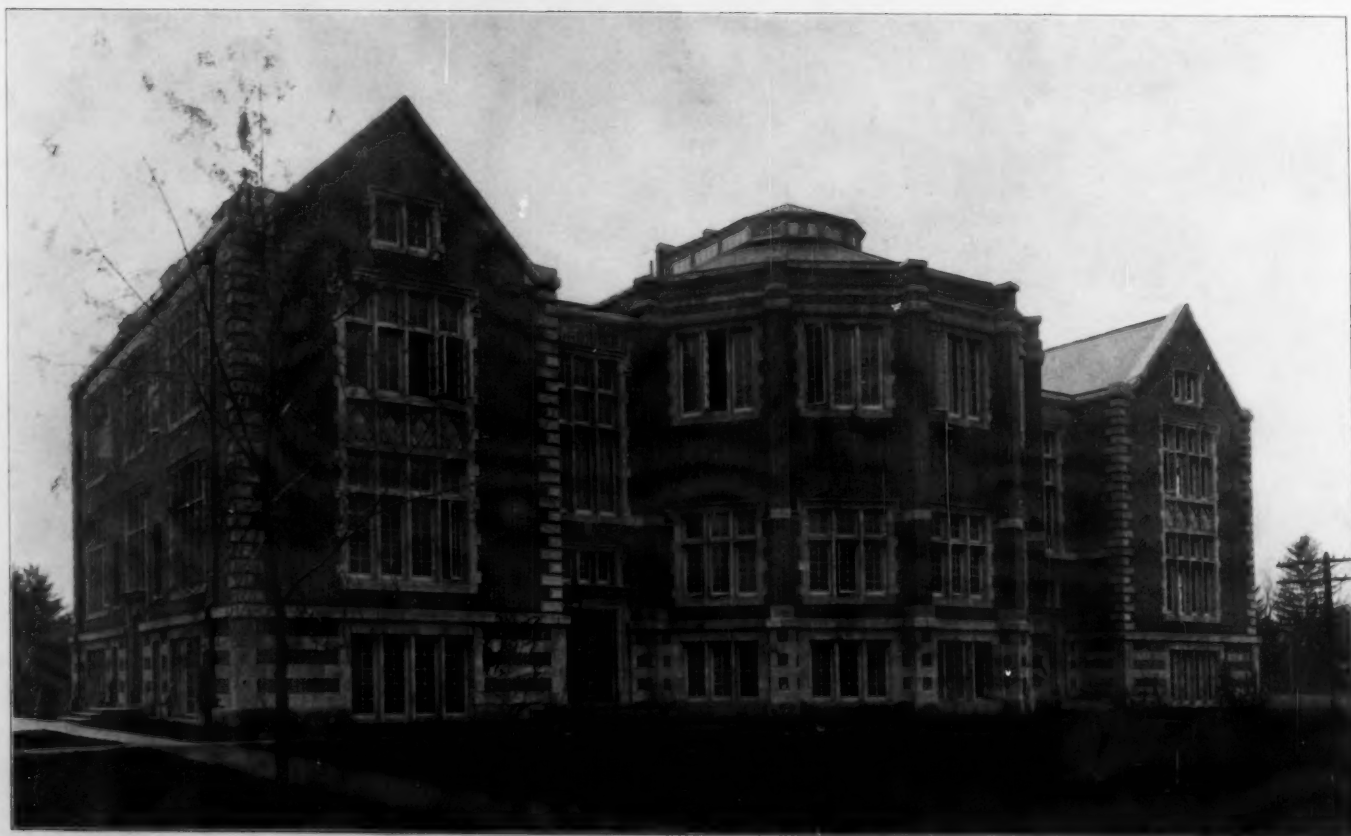


BASEMENT PLAN.

PLANS, DWELLING FOR NURSES, BOSTON CITY HOSPITAL, BOSTON, MASS.  
WHEELWRIGHT & HAVEN, ARCHITECTS.

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RECITATION HALL, VASSAR COLLEGE, POUGHKEEPSIE, N. Y.  
YORK & SAWYER, ARCHITECTS

THE BRICKBUILDER,  
FEBRUARY,  
1903.

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NEW BUILDING FOR THE NEW ENGLAND CONSERVATORY OF MUSIC, BOSTON, MASS.  
WHEELWRIGHT & HAVEN, ARCHITECTS.

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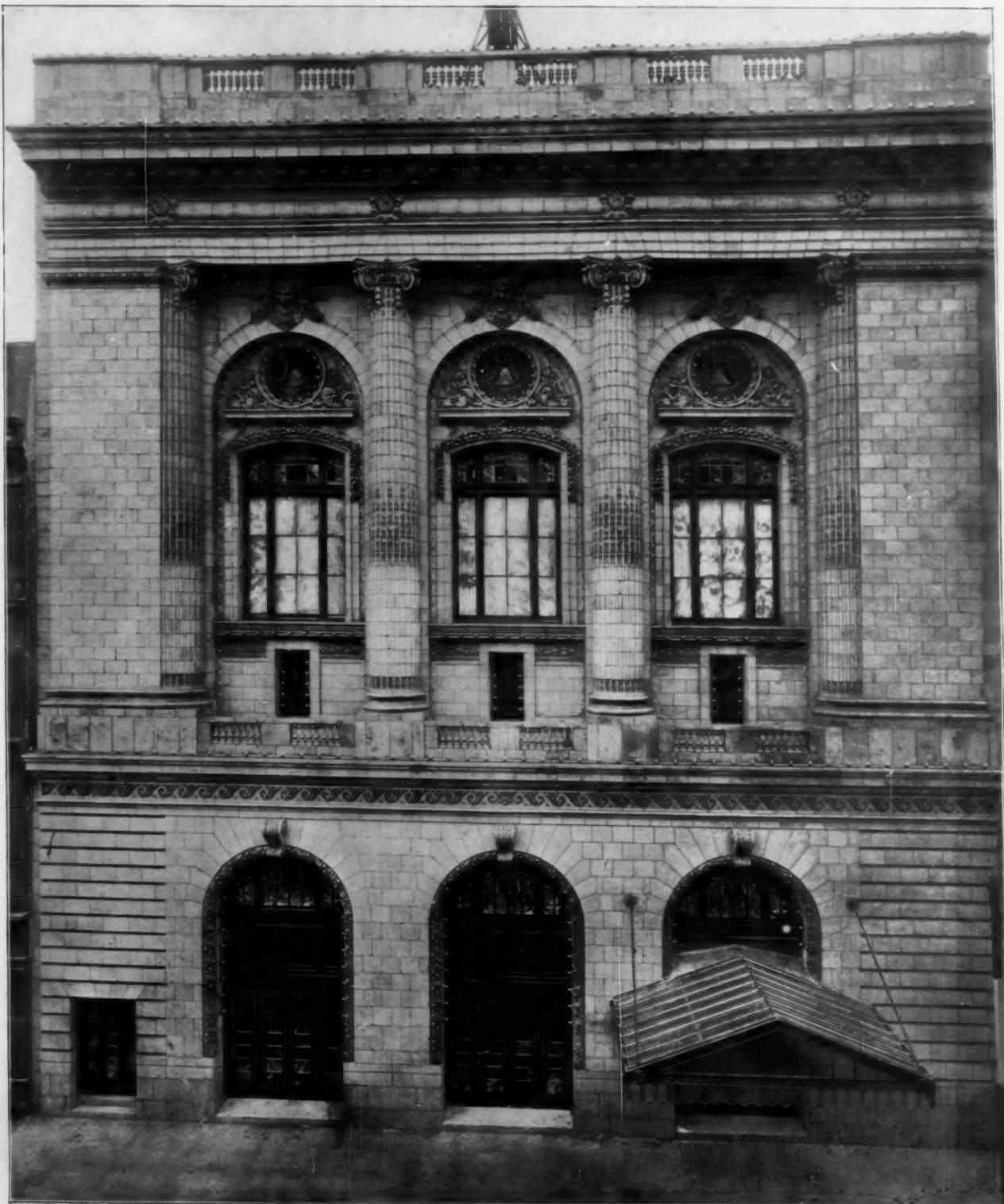


DWELLING FOR NURSES, BOSTON CITY HOSPITAL, BOSTON, MASS.  
WHEELWRIGHT & HAVEN, ARCHITECTS.



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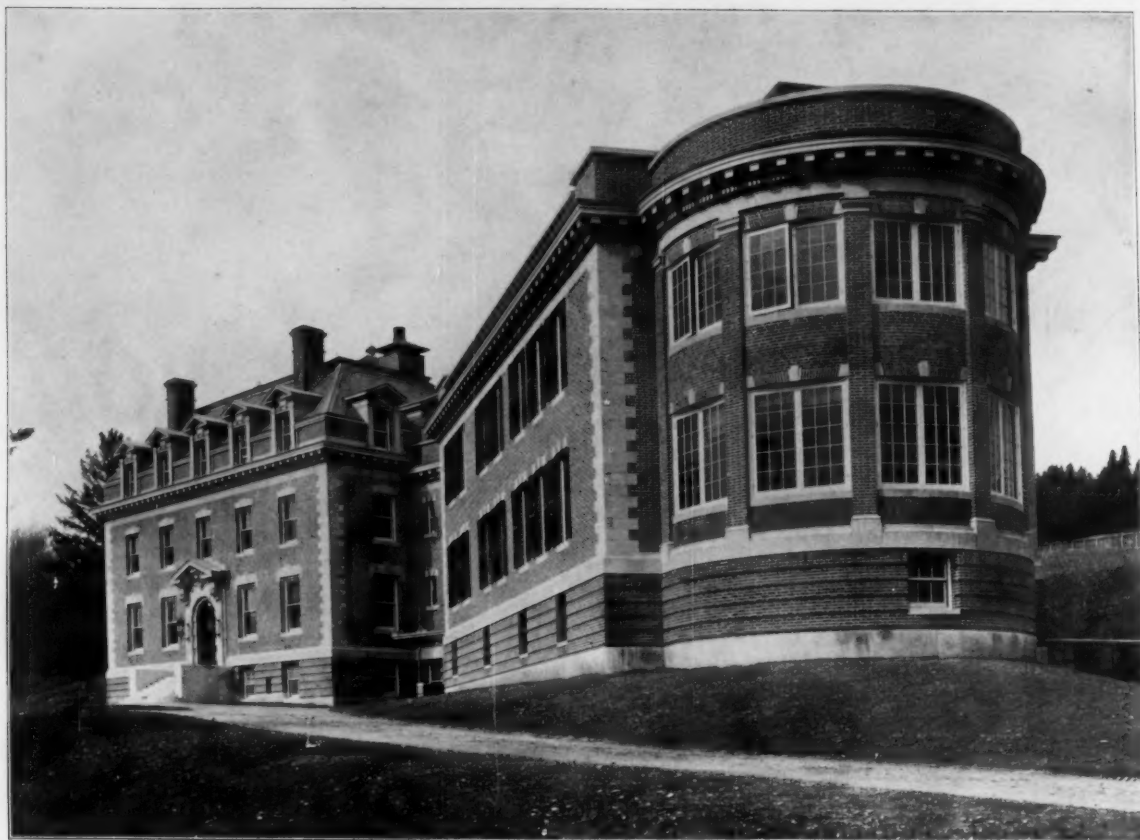
MAJESTIC THEATER, BOSTON, MASS.  
(ENTIRE FRONT OF TERRA-COTTA)

JAMES M. WOOD AND JOHN GALEN HOWARD, ASSOCIATE ARCHITECTS.

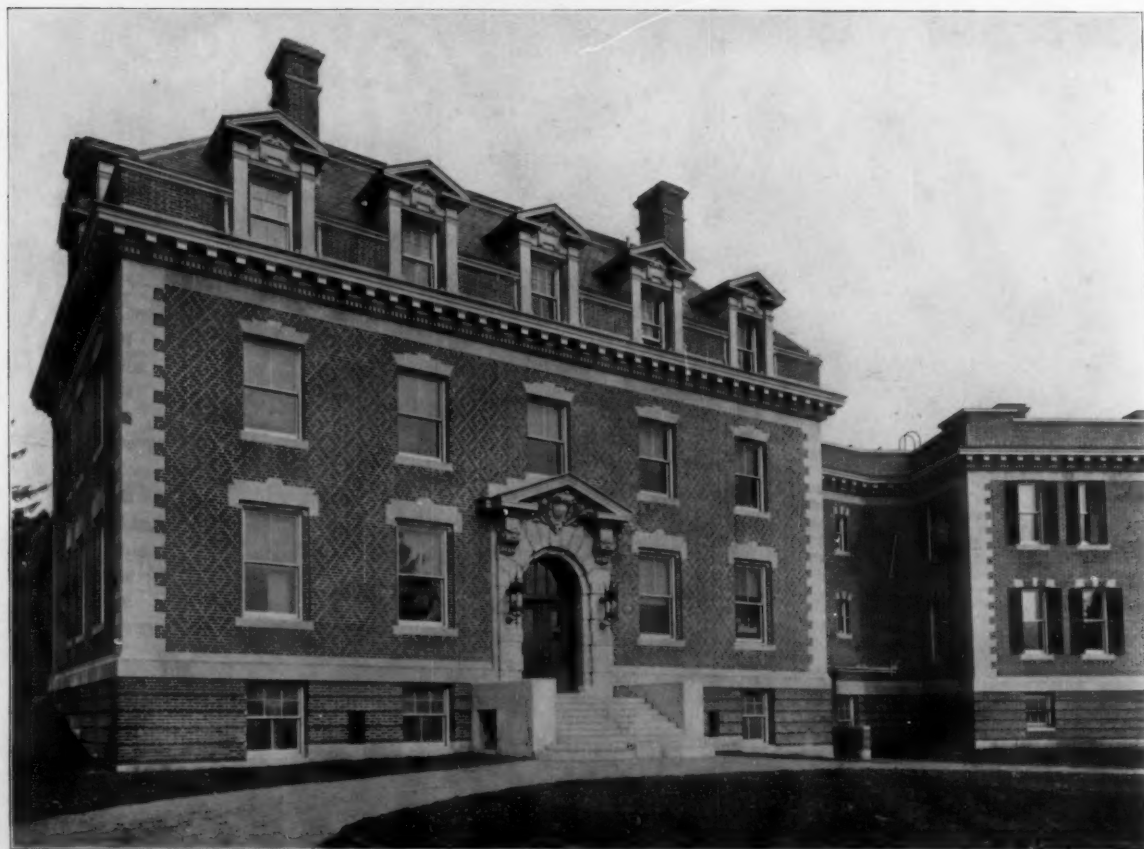
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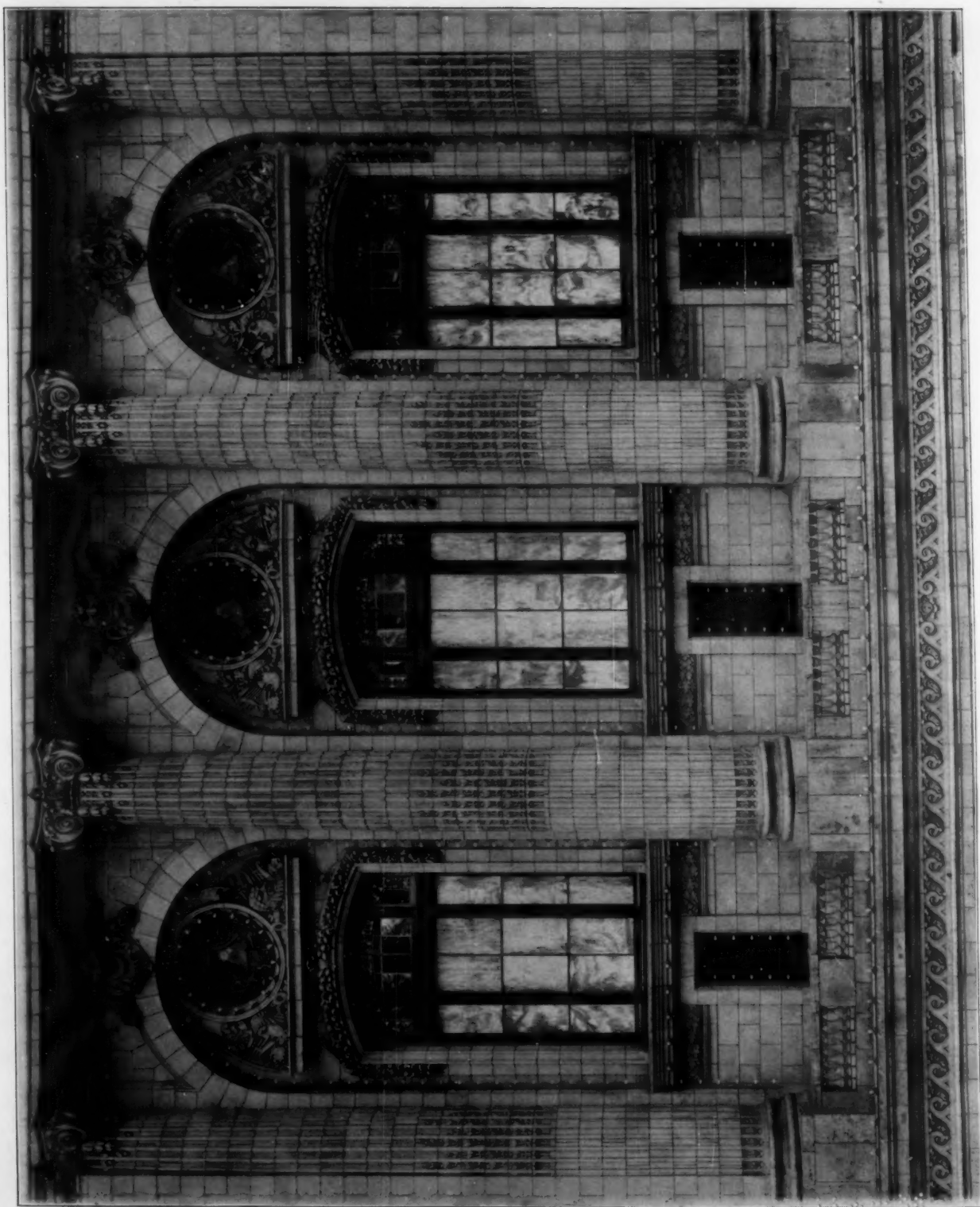
ADMINISTRATION AND WARD BUILDINGS.



ADMINISTRATION BUILDING.  
FAULKNER HOSPITAL, WEST ROXBURY, MASS.  
KENDALL, TAYLOR & STEVENS, ARCHITECTS.

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MAJESTIC THEATER, BOSTON, MASS. DETAIL OF FRONT.  
JAMES M. WOOD AND JOHN GALEN HOWARD, ASSOCIATE ARCHITECTS.